

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION



WATERSHED MANAGEMENT INITIATIVE
STRATEGIC PLANNING CHAPTER

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EXECUTIVE SUMMARY

OVERVIEW

The water resource protection efforts of the State Water Resources Control Board and the Regional Water Quality Control Boards are guided by a five year Strategic Plan (updated in 1997). A key component of the Strategic Plan is a watershed management approach for water resources protection.

To protect water resources within a watershed context, a mix of point and nonpoint source discharges, ground and surface water interactions, and water quality/water quantity relationships must be considered. These complex relationships present considerable challenges to water resource protection programs. The State and Regional Boards are responding to these challenges with the Watershed Management Initiative (WMI). The WMI is designed to integrate various surface and ground water regulatory programs while promoting cooperative and collaborative efforts within watersheds. It is also designed to focus limited resources on key issues.

Past State and Regional Board programs tended to be directed at site-specific problems. This approach was reasonably effective for controlling pollution from point sources. However, with diffuse nonpoint sources of pollutants, a new regulatory strategy was needed. The WMI uses a strategy to draw solutions from all interested parties within a watershed, and to more effectively coordinate and implement measures to control both point and nonpoint sources.

During initial implementation of the WMI, each Regional Board identified the watersheds in their Region, prioritized water quality issues, and developed watershed management strategies. These strategies and the State Board's overall coordinating approach to the WMI are contained in the Integrated Plan for Implementation of the WMI.

REGION DESCRIPTION

The Colorado River Basin Region covers approximately 13 million acres (20,000 square miles) in the southeastern corner of California. It includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. It is bounded on the east by the Colorado River; on the south by the Republic of Mexico; on the west by the Laguna, San Jacinto, and San Bernardino Mountains; and on the north by the New York, Providence, Granite, Old Dad, Bristol, Rodman, and Ord Mountain Ranges. The Region includes 28 recognized major watersheds or "hydrologic units," and contains waterbodies of statewide, national, and international significance (the Salton Sea and the Colorado River).

Watershed Delineation

The Region can be divided into essentially three watersheds, as shown. These watersheds are the Salton Sea Transboundary Watershed, the Colorado River Watershed, and the Desert Aquifers Watershed. The Salton Sea Transboundary Watershed and the Colorado River Watershed are geologically defined with major surface water bodies, while the Desert Aquifers portion of the Region contains little surface water and hundreds of aquifers.



Organization Structure and Management Strategy

Regional Board 7 staff are organized into two divisions: Core-Regulatory and Watershed Protection. Core regulatory programs will remain intact to carry out their programmatic commitments. The Watershed Protection Branch addresses overall planning and nonpoint source issues. Nonpoint source problems primarily include pollution of agricultural origin, pollution from Mexico, pollution from septic tanks, and nitrate pollution of groundwater emanating from fertilization of golf courses/greenbelts.

A. Core Regulatory Programs

Core regulatory programs include Chapter 15 and Non-Chapter 15 discharges of waste to land, Department of Defense, National Pollutant Discharge Elimination System (NPDES), Above Ground Storage Tanks, Underground Storage Tanks, and Stormwater. These core regulatory programs, with strong compliance and enforcement components, are the backbone of effective water quality protection and pollution prevention throughout the region, and are essential to fulfilling the RWQCB's legislative mandates. These programs are tied to specific fund sources, with explicit state, federal, regulatory and legislative mandates. Activities carried out through these programs are prioritized by individual program commitments.

B. Watershed Protection Programs

The Watershed Protection Branch covers several Programs. These Programs include Basin Planning (e.g., Basin Plan Amendments and Triennial Reviews), Nonpoint Source (NPS) Management, Total Maximum Daily Load (TMDL) development and implementation, Border Pollution and the New River /Mexicali Sanitation Program, Compliance Assurance and Enforcement, technical support services, Clean Water Act (CWA) Sections 305(b) (water body assessment) and 303(d) (listing of impaired water bodies), and Surface Water Quality Monitoring.

In this Region, activities related to watershed management (e.g., TMDL development and NPS management) are interrelated, as the majority of pollutants impairing beneficial uses are of nonpoint

source origin within the target watershed. Staff are working within watersheds to implement the State Nonpoint Source Management Plan, to develop TMDLs for listed agricultural pollutants, and to work with stakeholders to develop plans and strategies for the implementation of Best Management Practices (BMPs). CWA NPS pass-through grant projects and Proposition 13 pass-through grant projects are solicited and managed by the Watershed Protection Branch to encourage public education and self-determined solutions to NPS pollution. A major component of the strategy to address impairment of water bodies is the New River/Mexicali Sanitation Program. All of these activities fall outside of the traditional core regulatory framework, and require development of innovative solutions to complex problems. Additional resources will be requested and required to address water quality problems, which are presently either not addressed or addressed inadequately.

Protection of High Quality Groundwater

The Coachella Valley aquifer supplies high quality drinking water to virtually all of the valley's rapidly growing population. Likewise, the availability of good quality groundwater has been important in the development of other areas including Borrego Springs, Morongo Valley, Twentynine Palms, Joshua Tree, Yucca Valley, Lucerne Valley, and Desert Center. Nitrate impairment of this groundwater exceeds drinking water standards in some areas, and has caused a number of municipal supply wells to be shut down. Protection of this drinking water source is of equal priority to restoration of impaired surface waters. Staff is proposing Basin Plan amendments to protect these waters.

PROGRAMS COVERED UNDER WMI

Nonpoint Source Management Program

Nonpoint sources of water pollution are usually defined as sources which are diffuse and/or not subject to regulation under the federal National Pollutant Discharge Elimination System (for surface water discharges). Regional Board staff work to implement the State's *Plan for California's Nonpoint Source Management Program* and to develop and implement Total Maximum Daily Loads for the control of NPS pollution.

Total Maximum Daily Load (TMDL) Program

Currently, the focus of the WMI implementation in Region 7 is the Total Maximum Daily Load (TMDL) process--a process that addresses pollution from point and nonpoint sources. Section 303(d) of the Clean Water Act (CWA) requires the Regional Board to identify the Region's waters that do not comply with water quality standards applicable to such waters. Further, the Regional Board must rank the impaired waterbodies, taking into account the severity of the pollution and the uses made of such waters. Regional Boards are further required to establish TMDLs for those pollutants causing the impairments to ensure that impaired waters attain their beneficial uses. The Region's impaired waterbodies, extent of impairment, pollutants causing impairment, and the Regional Board's time schedule for TMDL development are shown in Table 1, located on the following page.

Regional Board staff proposes to work on the following TMDL activities during SFY 01-02:

- Implementation of the Alamo and New River sediment TMDLs
- Development of the nutrient TMDL for the Salton Sea
- Implementation of the New River pathogen TMDL
- Development of the sediment TMDL for the Imperial Valley Agricultural Drains
- Development of the pesticide TMDL for the Alamo River
- Development of the Palo Verde bacteria TMDL

New River/International Boundary

The New River carries urban runoff, untreated and partially treated municipal wastes, untreated and partially treated industrial wastes, and agricultural runoff from the Mexicali Valley. In addition, the River carries urban runoff, agricultural runoff, treated industrial wastes, and treated, disinfected and non-disinfected domestic wastes from the Imperial Valley.

Regional Board staff implements the New River/Mexicali Sanitation Program, which includes monthly observation tours of discharge locations and wastewater facilities in the City of Mexicali, Mexico; monthly 8-hour monitoring and quarterly 24-hour monitoring of the New River at the International Boundary; coordination with the U.S. Section of the International Boundary and Water Commission; technical reviews of documents, plans and reports; and participation on the binational committee to address New River border pollution issues. Regional Board staff has developed a TMDL for pathogens for the New River. The TMDL is expressed in terms of bacterial densities. Significantly high levels of fecal coliform bacteria (> 100,000 MPN/100 ml) are continuously measured in the New River at the International Boundary. The measured concentrations exceed the 60,000 MPN/100 ml water quality objective (WQO) established in the Basin Plan for the New River at the International Boundary.

Geographical Information Systems (GIS)

A GIS is an organized collection of computer hardware, software, geographic data, and personnel designed to efficiently and effectively capture, store, update, manipulate, analyze, and display all forms of geographically referenced information. Regional Board staff is establishing the system, which will provide support to basin planning activities, watershed management, development and implementation of TMDLs, and underground tanks.

Pass-Through Grants

Regional Board staff works to solicit, develop, and manage pass-through grant projects that will result in measurable water quality improvement, that substantially augment planning efforts, and that aim to provide effective education and outreach to the public. These grant monies include the Federal Clean Water Act Sections 205(j) (planning) and 319(h) (implementation) and state Proposition 13 grants.

Stakeholder Involvement

Stakeholder involvement is a cornerstone of the Watershed Management approach. This requires a commitment of active participation by Regional Board staff, usually for extended periods of time. Staff participation may facilitate the attainment of water quality goals where direct regulatory authority and/or program resources are not available. Moreover, stakeholder involvement assures local control and public participation, and a water quality management approach that is cognizant of stakeholder issues. The Regional Board has been very successful in efforts to include and activate a wide range of important stakeholders.

Table 1. Timeline for Development of Total Maximum Daily Loads (TMDLs)¹

Waterbody	Hydrologic Unit #	Size Affected	Problem Description	Specific Pollutants	Probable Source	TMDL Priority	Target Dates
New River	723.10	60 miles	Public health hazard, objectives violated, fish kills	Pesticides, silt, bacteria, nutrients, VOCs	Agricultural return flows and Mexico	high	<i>Sediment:</i> Start 1999, complete 2001 <i>Pathogen:</i> Start 1998, complete 2001 ² <i>Nutrients:</i> Start 2003, complete 2006 <i>Pesticides:</i> Start 2003, complete 2006 <i>VOCs:</i> Start 2004, complete 2006
Alamo River	723.10	52 miles	Elevated fish tissue levels (pesticides and selenium), toxic bioassay results (pesticides), recreational impacts	Pesticides, selenium, silt	Agricultural return flows ³	high	<i>Sediment:</i> Start 1998, complete 2001 <i>Selenium:</i> Start 2002, complete 2005 <i>Pesticides:</i> Start 2002, complete 2011
Imperial Valley Drains	723.10	1,305 miles	Elevated fish tissue levels (pesticides and selenium), toxic bioassay results (pesticides), recreational impacts	Pesticides, selenium, silt	Agricultural return flows ³	high	<i>Sediment:</i> Start 2001, complete 2003 <i>Selenium:</i> Start 2002, complete 2003 <i>Pesticides:</i> Start 2003, complete 2006
Salton Sea	728.00	220,000 acres	Salinity objectives violated, elevated fish tissue levels (selenium), recreational impacts	Selenium, salt, nutrients	Agricultural return flows ³	medium	<i>Salt:</i> Start 1998, complete 2001 ⁴ <i>Selenium:</i> Start 2000, complete 2003 <i>Nutrients:</i> Start 2000, complete 2003
Palo Verde Outfall Drain	715.40	16 miles	Bacteria objective violated, threat of toxic bioassay results, threat of sedimentation	Bacteria	Unknown	medium	<i>Bacteria:</i> Start 2001, complete 2005
Coachella Valley Stormwater Channel	719.47	20 miles	Bacteria objective violated, threat of toxic bioassay results	Bacteria	Unknown	low	<i>Bacteria:</i> Start 2004, complete 2009

¹ This is not a commitment to complete work. The commitments are made in fund source specific workplans.

² Regional Board proposes to establish TMDL in cooperation with US EPA/Mexico. This TMDL was formerly referred to as a Bacteria TMDL as opposed to a Pathogen TMDL.

³ Selenium originates from upper portion of the Colorado River and is delivered to the Imperial Valley via irrigation water.

⁴ A TMDL for salt will not address salt impairment of the Salton Sea. It is our position that restoration of the Salton Sea with respect to salt will require an engineered solution.

KEY ISSUES IN THE COLORADO RIVER BASIN REGION

SURFACE WATER QUALITY PROBLEMS

A. Identified Problems

As discussed in detail above, the most significant surface water quality problems in the targeted watershed are the problems with the Salton Sea, its two major tributaries (the New and Alamo Rivers), and Imperial Valley Agricultural Drains. Several constituents of nonpoint source origin impair all of the major surface water bodies in the Imperial Valley. Except for the pollution present in the New River at the International Border, the problems in this watershed are mainly associated with non-point source (NPS) pollution from agricultural practices in Imperial Valley.

The Colorado River supplies drinking water to millions of Southern Californians. A segment of the Lower Colorado River may be impaired by bacteria, perhaps seasonally. The source of the of bacteria pollution appears to be from overuse of septic systems by resort parks along the River. Communities along the Colorado River representing three states and two Indian tribes have formed a Coalition to address the problem. Although the Regional Board does not have direct regulatory authority on Indian land to remedy this problem, it will assist this stakeholder group by providing technical assistance and input on regulatory concerns as a solution is developed.

The Palo Verde Valley is located in the Lower Colorado River Watershed (for the purposes of WMI). This Valley is predominantly agricultural. The Palo Verde Outfall Drain is listed on the 1998 updated §303(d) List for impairment caused by bacterial pollution of unknown origin.

B. Potential Issues in Need of Further Investigation

Lower Colorado River Bacteria
Colorado River Perchlorate
Effects of water transfers on water quality in the Lower Colorado

GROUNDWATER QUALITY PROBLEMS

A. Drinking Water Aquifers

In this desert region, groundwater basins of high quality are a precious commodity and must be given the highest protection. As this region grows in population, water quality impacts are occurring. Three groundwater/drinking water quality issues of significant importance: a nitrate plume in the upper desert groundwater basin of Lucerne Valley; a nitrate plume in the Desert Hot Springs groundwater basin; and nitrate pollution of the Coachella Valley aquifer.

B. Leaking Underground Storage Tanks (USTs) Regionwide

UST leaks contribute significantly to water quality problems within the Region. The two areas impacted most within Region 7 are the Coachella Valley (located within the priority watershed) and the City of Blythe. In both areas the underlying soil type is porous, thus allowing a significant amount of pollutants (e.g., petroleum hydrocarbons) to reach groundwater. Also, the gasoline oxygenate known as MTBE (methyl tertiary-butyl ether) has become a major problem. MTBE leaks have caused water districts within the Coachella Valley Groundwater Basin to temporarily shut down, and even abandon, drinking

water wells. This is of serious concern, as the groundwater basin is the sole source of drinking water for much of the Coachella Valley.

RESOURCES

FUNDED ACTIVITIES (WMI related)

A. TMDLs

Funded activities are set forth in the Region's State Fiscal Year (SFY) 2000-2001 TMDL Development and Implementation State and Federal Workplans and Nonpoint Source Implementation Workplan. These activities include continued development of the silt TMDL for the Alamo River and of the bacteria TMDL for the New River, development of a silt TMDL for the New River, water quality monitoring for assessment of priority TMDL implementation, public education and stakeholder support activities, tracking/survey of implementation of Best Management Practices (BMPs) for target pollutant reduction. Some money is also allocated to the Region for basin planning issues (e.g., amendments, review). In addition, State funding for both staff and contracts was allocated to the Region for development of implementation plans for TMDLs being developed this SFY.

B. Surface Water Quality Monitoring

Water quality monitoring has been recognized as a key activity in the State Water Resources Control Board Strategic Plan and in the SWRCB Nonpoint Source Management Program. Monitoring data are necessary to fulfill the federal Clean Water Act 305(b) water body assessment requirements, to establish scientifically defensible and statistically significant baseline data for development of TMDLs, and to assess the success of efforts implemented to address water quality pollution. Region 7 has received some funding for water quality monitoring, but more is needed.

UNFUNDED ACTIVITIES

A. New River/Mexicali Sanitation Project

USEPA had provided funding for the New River/Mexicali Sanitation Program, but has informed staff that it does not have anymore funds for the Program. Without the funding the current Program cannot be implemented. Staff is pursuing alternate sources of funding for this program through the Division of Clean Water Programs (CWP). A proposal for funding, together with a workplan, was submitted to CWP for consideration in March 2001.

B. Surface Water Quality Monitoring

Although this region has received a substantial increase in funds for water quality monitoring, there are still a number of activities that are unfunded in this area. The main area where funds for water quality monitoring is needed is the Colorado River. The USGS had established monitoring stations on the Colorado River that are currently not operating. This region intends to restart monitoring at these sites in order to track the changes to water quality in the Colorado River. Additionally, there are lakes along the Colorado that serve as critical habitat for wildlife in this region. This region intends to assess the quality of water in these lakes.

C. Groundwater Protection

Groundwater protection funds are essentially nonexistent in this region. The Regional Board, in its 1999 Triennial Review of the Basin Plan, directed staff to review the available data to refine beneficial use

designations for groundwater. This work is unfunded. Refinement of the beneficial uses of groundwater will assist the Regional Board in developing efficient protection and abatement strategies for groundwater resources.

D. Development of Groundwater Standards

The Regional Board identified development of water quality objectives for nitrates and total dissolved solids in groundwater as a priority issue during its 1999 Triennial Review of the Basin Plan. This work is essential in the Regional Board's efforts to address ground water pollution, as it lays the foundation for development of waste discharge requirements and provides a numerical benchmark for assessment of ground water resources. This work will require 1.0 PY.

E. MTBE

Regional Board staff is responsible for disseminating information to stakeholder government agencies concerning local MTBE pollution. Quarterly site reports are submitted to the Regional Board by the responsible parties and are then passed on to the stakeholder agencies. This process provides a steady, reliable source of information on the status of groundwater remediation at MTBE contaminated sites.

F. Septic and Implementation of SB 1852

The Regional Board identified development of a new policy for septic tank/leachfields as a priority issue during its 1999 Triennial Review of the Basin Plan. This work is unfunded. In addition, Senate Bill 1852 requires the Regional Board to prohibit the discharge of wastewater from existing or new septic systems on parcels of less than 1/2 acre that overlie the Mission Creek and Desert Hot Springs aquifers, provided the availability of sewers within 200 feet of the property. Enforcement of this wholly unfunded mandate will impose a serious financial burden on this Region. An estimated 1.0 PY is needed to begin implementation of this law.

• FOR MORE INFORMATION

INTERNET INFORMATION

The Colorado River Basin Regional Water Quality Control Board has a website dedicated to current Watershed Management Initiative activities. This site is located at <http://www.swrcb.ca.gov/~rwqcb7/wmi>

BASIN PLANS

The Water Quality Control Plan (Basin Plan) for the Colorado River Basin Region is available as an Adobe Acrobat document on the internet at <http://www.swrcb.ca.gov/~rwqcb7/documents/r7bplan.pdf>. Hard copies of the Basin Plan can be purchased for \$25, payable to "RWQCB – Region 7", at the address below. The Basin Plan can also be viewed at the Regional Board office, during normal business hours and excluding government holidays, at the address below.

STAFF ASSISTANCE AND INFORMATION

For more information about the Watershed Management Initiative in Region 7, contact Ben Zabinsky at (760) 776-8981.

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Section 1. Introduction

1.1 Background

The Colorado River Basin Region covers approximately 13 million acres (20,000 square miles) in the southeastern corner of California. It includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. It is bounded on the east by the Colorado River; on the south by the Republic of Mexico; on the west by the Laguna, San Jacinto, and San Bernardino Mountains; and on the north by the New York, Providence, Granite, Old Dad, Bristol, Rodman, and Ord Mountain Ranges. The Region includes 28 recognized major watersheds or “hydrologic units,” and contains waterbodies of statewide, national, and international significance (the Salton Sea and the Colorado River).

Implementation of the Watershed Management Initiative (WMI) requires an integrated planning process to effectively use staff and grant resources for the prevention and control of water pollution on a watershed scale while meeting regulatory program mandates. The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs), in partnership with the U.S. Environmental Protection Agency (USEPA), have agreed to develop and implement this integrated planning process.

This Chapter is a planning tool to help identify the Colorado River Basin Region’s priorities and where it plans to spend baseline resources, as well as where it needs additional resources (or would apply new resources, should they be made available). It is the blueprint for meeting regional water quality protection and improvement goals and objectives over the next five years. The Chapter also identifies activities that are currently funded and those currently unfunded, the latter, in part, to support requests for funding. The watershed strategies and priorities in the Chapter will be used to justify the need to fund activities not currently funded and are presented, as closely as possible, in a format readily translatable into Budget Change Proposals (BCPs).

The Chapter itself is not a commitment to complete work but provides a framework to identify priorities and resource needs which should form the basis for formal commitments which are made in fund source- and program-specific Workplans on an annual basis. Determinations of which activities will be funded by specific Workplans will be negotiated on the basis of the information in the Chapters. Annual program Workplans and grant applications will still be prepared by program managers to identify which activities are going to be funded in a particular year based on the fiscal decisions made.

Ultimately, the Chapter will describe the management strategy under which the Region plans to operate. It will explain how and why organizational goals and priorities were established and describe strategies to be used to achieve the water quality goals. The Chapter will contain a baseline budget for the current year and estimated budget for future years.

1.2 Strategic Plan – The Watershed Management Initiative

In 1993, the SWRCB initiated an external review of the programs of the SWRCB and the nine RWQCBs. The purpose of this review was to identify how to best meet statutory mandates and assure the protection of California’s ground and surface waters. Based upon this review, the Strategic Plan was developed. An important concept that emerged from the strategic planning process was that water quality problems and solutions should, in many cases, be considered on a watershed basis, and thus, the Watershed Management Initiative was developed. It is the intent of the WMI process to integrate the various RWQCB, SWRCB and USEPA programs on a watershed basis. This chapter describes the Colorado

River Basin Region's approach to watershed planning and also serves as a tool for making budgetary decisions.

1.3 Definition of Watershed Management Areas

For the purpose of implementation of the Watershed Management Initiative in the Colorado River Basin Region, watershed management areas are defined at three levels: 1) the entire Colorado River Basin Region, 2) sub-regional watersheds, and 3) drainage basins. Defining these three levels provides a mechanism to identify problems and then seek remedies at the most effective level.

The first level is the entire area of the Colorado River Basin Region. Regionwide activities, described in Section 3 of this document, are implemented at this level of watershed management area.

The second level is sub-regional watersheds which are generally areas defined broadly by geologic boundaries. For the purposes of the Watershed Management Initiative, the Region has been divided into three sub-regional watershed management areas: 1) the Salton Sea Transboundary Watershed, 2) the Lower Colorado River Watershed, and 3) the Hi-Desert Groundwater Basins. These boundaries are shown in Figure 1. Watershed activities described later in this document are implemented at this level of watershed management area.

The third level includes physical drainage basins within sub-regional watersheds. For example, the Alamo River watershed is a physical drainage basin located within the Salton Sea Transboundary Watershed Management Area. This level of management area lends itself to the development of Total Maximum Daily Loads, local stakeholder plans, and focused water quality monitoring activities.

In summary, these three levels have been established to classify problems and water protection actions and focus appropriate control measures, at the most appropriate geographic scale.



Figure 1. Sub-Regional Watersheds

1.4 Organization Structure and Management Strategy

Regional Board 7 staff are organized into two divisions: Core-Regulatory and Watershed Protection. Core regulatory programs will remain intact to carry out their program commitments. The latter branch addresses overall planning and nonpoint source pollution issues. Nonpoint source problems primarily include pollution of agricultural origin, pollution from Mexico, pollution from septic tanks, and nitrate pollution of groundwater emanating from fertilization of golf courses/greenbelts. Although spread over different watersheds, staff intends to prioritize activities/actions by ranking all Regional water quality problems by severity, importance of beneficial uses, and potential to correct the problem. Therefore, rather than focusing all attention on a single designated watershed, the Region will -be addressing priority problems and protection actions throughout the Region, regardless of the watershed where the problem is occurring or the action is needed.

1.5 Overview of Regional Board Activities

There are a number of water quality protection programs implemented by the Regional Board that are integrated into the WMI process. These programs, and how they fit the Region’s water quality protection strategy, are discussed below. In addition, specific program activities for each watershed management area are discussed in “Section 2 – Watershed Specific Activities,” and specific program activities to be carried out regionwide are discussed in “Section 3 – Regionwide Activities.”

A. Standards/Basin Planning

As part of the State’s continuous planning process, the Colorado River Basin Region’s *Water Quality Control Plan* (Basin Plan) is reviewed and updated as new data and information become available. The

California Water Code Section 13240 requires that Basin Plans be reviewed periodically and the Clean Water Act Section 303(c) requires states to review water quality standards every three years (Triennial Review) and to revise them if necessary. Triennial Review issues and other planning/policy issues are discussed further in “Section 3 – Regionwide Activities.”

B. Core-Regulatory Program (NPDES, Non-Chapter 15, and Chapter 15)

One of the Regional Board’s principal means of achieving water quality objectives, and thereby protecting beneficial uses, is through the development, issuance, and enforcement of waste discharge requirements. The Regional Board may issue federal National Pollutant Discharge Elimination System (NPDES) permits and state Waste Discharge Requirements for discharges to surface waters from point sources and certain nonpoint sources (stormwater) or Waste Discharge Requirements for discharges to land. Regional Board staff activities include issuance of new permits, updating existing permits, compliance inspections, review of self-monitoring reports, response to spills and complaints, and associated enforcement. Responding to appeals and/or litigation is also a resource intensive activity. Most core-regulatory activities are conducted at the regionwide level of management area, although the NPDES program may conduct activities at the sub-regional watershed level in some cases. For example, when a Total Maximum Daily Load (“TMDL”, as discussed in the following section) establishes a new waste load allocation for point sources, NPDES permits would be altered to meet the TMDL allocations.

Core Regulatory activities for the next five fiscal years, where known, are shown in the following appendices:

- Appendix A – NPDES Major Permit Reissuance Schedule
- Appendix B – NPDES Minor Permit Reissuance Schedule
- Appendix C – Stormwater Permit Reissuance Schedule
- Appendix D – Non-Chapter 15 Permit Reissuance Schedule
- Appendix E – NPDES Compliance Inspection Schedule
- Appendix F – NPDES Pretreatment Audit Schedule
- Appendix G – Chapter 15 Permit Reissuance Schedule

C. Total Maximum Daily Loads

Section 303(d) of the Clean Water Act requires that every two years the state update the list of waterbodies for which water quality standards (water quality objectives and beneficial uses) are not attained, or are not expected to be attained with the implementation of technology-based controls. The list includes a description of the pollutants causing impairment and a schedule for developing a TMDL for each pollutant. The TMDL is the maximum load of a pollutant that can be discharged from point sources, nonpoint sources, and natural sources without impairing water quality and violating water quality objectives. A TMDL must include waste load allocations for point sources, load allocations for nonpoint sources and natural sources, and a margin of safety. A TMDL can be thought of as consisting of four phases: (1) technical TMDL development; (2) implementation planning; (3) Basin Plan amendment; and (4) implementation oversight and tracking.

The Regional Board last updated the 303(d) list and TMDL development schedules in January 1998. The Region’s 303(d) list contains 6 waterbodies, most of which are impaired by multiple stressors, for a total of 15 TMDLs. Appendix H, Table H-1, includes the 303(d) list and schedule of TMDL activities. Appendix H, Table H-2, is a detailed 5-year schedule of TMDL activities and Appendix H, Table H-3 contains detailed TMDL task schedules for TMDLs activities proposed over the next 3 years.

Point sources are effectively controlled through implementation of the Regional Board’s core regulatory program. Nonpoint source (NPS) discharges, primarily irrigation return flows from irrigated agriculture,

remain the most significant source of pollutants in many of the Region's surface waters. TMDLs are an important part of the Regional Board's strategy for assessing and controlling nonpoint source contributions to pollutant loads.

TMDL development and implementation is integrated with other Regional Board programs. Strategies developed through the 1999 "Plan for California's Nonpoint Source Pollution Control Program" and its Three-Tiered approach to nonpoint source regulation (self-determined compliance, regulatory-encouraged compliance, and issuance of waste discharge requirements) will continue to be utilized to develop effective TMDL implementation programs for NPS discharges. Modification of NPDES permits, watershed planning, and the involvement of stakeholders are also an important part of effective TMDL development and implementation.

D. California's Nonpoint Source Pollution Control Program

Nonpoint source inputs are diffuse in origin and variable in quality. Pollution caused by agricultural practices, silvicultural practices, urban sources, hydromodification, and marinas and recreational boating is considered to be of nonpoint source origin.

Nonpoint source pollution is the leading cause of water quality impairment in California. California's Nonpoint Source (NPS) Pollution Control Program has been in effect since 1988. The SWRCB updated its NPS Control Program in 1999, through adoption of its "Plan for California's Nonpoint Source Pollution Control Program" (NPS Program Plan). The NPS Plan sets forth 5-year implementation and a 15-year implementation plans. The NPS Program Plan enhances the State's efforts to protect water quality, and to conform to the Clean Water Act Section 319 (CWA 319) and Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA). The State's long-term goal is to "improve water quality by implementing the management measures identified in the California Management Measures for Polluted Runoff Report (CAMMPR) by 2013." A key element of the Program is the "Three-Tiered Approach," through which self-determined implementation is favored, but more stringent regulatory authorities are utilized when necessary to achieve implementation. The Statewide NPS policy is cited in the Region's Basin Plan and serves as the Regional NPS policy. Regional goals to be implemented as part of the State's 5-Year NPS plan are discussed in this document under the appropriate watershed specific activities sections. The CAMMPR Report identified 61 "Management Measures", which are to serve as general goals for the control and prevention of polluted runoff. Appendix I contains a list of the 61 Management Measures.

All of the impairments to surface waters in the Colorado River Basin Region are caused, to a large degree, by nonpoint source inputs. Management of nonpoint source inputs is in many ways more difficult to achieve, since it requires an array of control techniques customized to local watershed and economic conditions, because there is not an established regulatory structure, and because generally it is more difficult to locate nonpoint sources of pollution. Furthermore, there has historically been little funding available to address nonpoint source discharges. The primary Management Measure category contributing to impairment of surface water is Category 1 (Agriculture), while inputs from Category 3.4B (Onsite Disposal Systems) threaten the groundwater in the Region.

The Three-Tiered approach to NPS regulation includes the following tiers that can be implemented as needed:

1. Self-Determined implementation of Best Management Practices (BMPs);
2. Regulatory-based encouragement of Best Management Practices; and
3. Effluent requirements.

The following are regional nonpoint source pollution control goals:

1. Implement all applicable management measures by 2013.
2. Address International pollution of the New River.
3. Address agricultural NPS pollution in the Salton Sea Transboundary Watershed.
4. Develop a regulatory structure, utilizing the three-tiered approach, to effectively address NPS pollution.
5. Protect drinking water aquifers in the Region.
6. Implement a comprehensive monitoring, assessment, and reporting program.
7. Provide stakeholder outreach and education, and financial and technical assistance for water quality planning and NPS pollution control.

Further description of the Regional NPS Control Policy can be found in “Section 3 – Regionwide Activities and the tables in Appendix J.”

E. New River/Mexicali Sanitation Project

The Regional Board has been actively involved in the cleanup of the New River and has been a significant force in molding proceedings to address international pollution of the New River. The Regional Board has monitored the water quality of the New River since 1975. In 1995, the United States Environmental Protection Agency (USEPA) provided funds to the Regional Board to monitor and document the water quality at the International Boundary on a monthly basis. The funding provides for monthly observation tours of discharge locations and wastewater facilities in the City of Mexicali, Mexico; monthly 8-hour monitoring and quarterly 24-hour monitoring of the New River at the International Boundary; coordination with the U.S. Section of the International Boundary and Water Commission; technical reviews of documents, plans and reports; and participation on the binational technical committee. All of these activities help assess the degree to which Mexican sanitation projects improve water quality of the New River at the boundary. Monitoring data indicate that the New River is polluted by pesticides, bacteria, silt, nutrients (e.g., nitrate and phosphate), and volatile organic constituents. Funding for these activities has been significantly curtailed by the USEPA during the last three years, and the USEPA informed the Regional Board that it lacks funding for the activities. Staff is pursuing alternate sources of funding for this program through the Division of Clean Water Programs (CWP). A proposal for funding, together with a workplan, was submitted to CWP for consideration in March 2001. Staff is requesting approximately \$250,000 to continue these activities.

F. Surface Water Quality Monitoring and Assessment

Need and Uses for Monitoring and Assessment

Water quality monitoring has been recognized as a key activity in the SWRCB Strategic Plan and in the SWRCB NPS Management Program. Water quality data are necessary to fulfill the federal Clean Water Act 305(b) water body assessment requirements, to establish scientifically defensible and statistically significant baseline data for development of TMDLs, and to assess the success of efforts implemented to address water quality pollution. In addition, Title 40 of the U.S. Code of Federal Regulations (40 CFR), Part 130.4 says, “States must establish appropriate monitoring methods and procedures (including biological monitoring) necessary to compile and analyze data on the quality of waters of the United States...”

For the purposes of water quality planning, standards development, TMDL development, and tracking/oversight of implementation two types of water quality monitoring are essential. These include Assessment Monitoring and Intensive Monitoring Studies, as described below.

Assessment Monitoring

Assessment water quality monitoring activities will be taking place on a quarterly basis for all major surface waters of the Region. Analytical parameters include baseline parameters (temperature, pH, dissolved oxygen, etc.), pesticides (organochlorine, organophosphate, carbamate, and synthetic pyrethroids are all heavily used in the Region), nitrates, phosphates, volatile organic constituents, metals, dioxins, and other analytes of interest. Uses for assessment data include the bi-annual Clean Water Act Section 305(b) Waterbody Assessment and the regular listing of impaired waters, pursuant to Section 303(d) of the Clean Water Act and applicable federal regulations. For impaired waterbodies, this data serves as baseline data for development of TMDLs. All assessment monitoring is carried out under a Quality Assurance Project Plan (QAPP) that conforms with USEPA *Requirements for Quality Assurance Project Plans for Environmental Data Operations* (EPA QA/R-5, 1994). Monitoring programs are adaptive – that is, as the analytical results are evaluated, monitoring programs are revised (temporally, spatially, analytes) to better characterize (temporally, spatially, concentrations) constituents of concern, while routinely screening for potential pollutants within the watersheds. Descriptions of proposed Intensive Monitoring Studies for the Region are located in “Section 2.1H.”

Another assessment monitoring activity of priority is the SWRCB Toxic Substances Monitoring Program (TSMP), which analyzes fish tissue for the presence of contaminants. Samples for the TSMP are being collected on a yearly basis from strategic sample locations. These data are important for detecting contaminants that bioaccumulate in fish, and as a result, may pose threats to aquatic species, fish-eating birds, and humans.

Intensive Monitoring Studies

Intensive studies are warranted when there is a severe threat to beneficial uses and/or when TMDLs are under development and/or during implementation phases of TMDLs. Intensive monitoring studies were conducted in 1999 and 2000 for development of the Pathogen TMDL for the New River and for the Silt/Sediment TMDL for the Alamo River. Also, in October 1999, Regional Board staff conducted a special study of New River water quality. The River was sampled continuously for one week (168 hours). The results of this study are being used to refine the monitoring program for the River at the International Boundary, assess the temporal trends of New River water quality, and TMDL development. Ideally, Regional Board staff would be funded to monitor for constituents scheduled for TMDL development at least one year prior to commencement of TMDL development activities. This would provide adequate data upon which to build the technical TMDL elements including baseline conditions, source analyses, waste load and load allocations. Like assessment monitoring activities, all intensive studies are carried out under a QAPP that conforms with USEPA EPA QA/R-5, 1994. Descriptions of proposed Intensive Monitoring Studies for the Region are located in “Section 2.1H.”

In many cases, the Regional Assessment monitoring and Intensive Monitoring Studies can be coordinated to provide efficient use of resources, while obtaining valid data of known quality. For both ambient monitoring and intensive studies, efforts will be made to ensure that the final data, including documented procedures and “meta data”, generated will be made available to stakeholders and the public (regular reports, internet availability, etc.).

Regional Coordination of Monitoring Activities within Priority Watershed

Since July 2000, Regional Board staff have chaired meetings of the Salton Sea Water Quality Technical Committee (WQTC). Several governmental and non-governmental organizations that are involved in the generation and/or evaluation of water quality data for the Salton Sea watershed participate in the WQTC.

The primary objectives of the WQTC are to:

- Enhance collaboration regarding water quality data sharing, storage, and distribution;
- Develop common methods for water quality sampling and analytical work wherever feasible to facilitate data compatibility; and
- Conduct collective, ongoing technical evaluation of water quality information for monitoring changes in the Salton Sea.

Through coordination with the agencies involved in Salton Sea water quality monitoring and evaluation, a better understanding and consensus on technical water quality issues in the Salton Sea watershed will be possible.

G. Groundwater

Being a desert region, much of the population of the Region relies on groundwater resources as the main (and sometimes sole) source of drinking water. The Coachella Valley aquifer supplies high quality drinking water to virtually all of the valley's rapidly growing population. Likewise, the availability of good quality groundwater has been important in the development of other areas including Borrego Springs, Morongo Valley, Twentynine Palms, Joshua Tree, Yucca Valley, Lucerne Valley, and Desert Center. Nitrate impairment of this groundwater exceeds drinking water standards in some areas, and has caused a number of municipal supply wells to be shut down. Protection of this drinking water source is of equal priority to restoration of impaired surface waters. Proposed activities for the protection of groundwater are discussed in the appropriate watershed sections.

1.6 The Watershed Management Approach

The watershed planning approach utilized in the Colorado River Basin Region involves the following basic components:

- Implementation of core-regulatory programs to fulfill statutory mandates;
- Identification, evaluation, and prioritization of water quality problems
- Development and implementation of water quality protection actions and goals;
- Public participation through stakeholder groups;
- Measuring success.

1.7 Regional Priorities

A. Priority Setting Process

In December 1999, the Regional Board's Executive Officer and Unit Chiefs developed a ranking matrix to consider the threats various stressors pose to beneficial uses in the Region. Through this process the following issues were identified as high priority within the Colorado River Basin Region.

B. High Priority Issues

- *Regional Implementation of the Region's Core-Regulatory Programs*
- *Regional Compliance Assurance and Enforcement*
- *Control/reduction of International Pollution in the New River (Salton Sea Transboundary Watershed) – specifically, reduction of pathogens, biological oxygen demand (BOD), and volatile organic constituents to meet water quality standards.*

- *Control/reduction of NPS Pollution in the Salton Sea Transboundary Watershed*, specifically, control of NPS pollution in the Imperial Valley portion of the watershed where impairments are most severe. Specific pollutants, in order of concern, are insoluble pesticides, soluble pesticides, total dissolved solids (salts), phosphates, selenium, nitrates, and BOD.
- *Protection of Coachella Valley Groundwater (Salton Sea Transboundary Watershed)* – specifically, control of volatile organic constituents, petroleum products and MTBE, and nitrate pollution in groundwater.
- *Protection of Desert Hot Springs and Mission Springs Aquifers (Salton Sea Transboundary Watershed)* – specifically, control of nitrate and TDS pollution in groundwater.

1.8 Watershed Management Initiative Chapter Organization

The remainder of the Colorado River Basin Region Watershed Management Initiative Chapter is organized as follows:

- Section 2 – Watershed Activities
- Section 3 – Regionwide Activities
- Section 4 – Resource Allocation Summary Table
- Appendices

Section 2. Watershed Activities

2.1 Salton Sea Transboundary Watershed

A. Salton Sea Transboundary Watershed

The Salton Sea Transboundary Watershed is the Region’s Priority Watershed for the purposes of the WMI. The watershed is located in the Sonoran desert region in the southeastern corner of California, encompasses one-third of the Colorado River Basin Region (about 8,360 square miles), and contains five (out of a total of six) of the Region’s impaired surface waterbodies. (Hydrologic Units contained within the Salton Sea Transboundary Watershed are listed in Appendix K.) Most of the watershed is in Imperial County, but it also receives drainage from Coachella Valley in Riverside County and the Mexicali Valley in Mexico (via the New River). The watershed has been identified as a Category I (impaired) Watershed under the 1998 California Unified Watershed Assessment (UWA).^{*} Water imported from the Colorado River has created an irrigated agricultural ecosystem in the Salton Sea Transboundary Watershed; wildlife and aquatic species are dependant on habitat created and maintained through the discharge of agricultural return flows. Major waterbodies in the watershed include the Salton Sea, the Alamo River, the New River, the Imperial Valley Agricultural Drains, the Coachella Valley Stormwater Channel. Other waterbodies of importance include San Felipe Creek and Salt Creek, which provide critical habitat for the endangered desert pupfish. Aquatic and wildlife habitat uses that developed incidental to the importation of water into the desert are designated beneficial uses in the Region’s *Water Quality Control Plan* (Basin Plan).

The Salton Sea is a closed basin, saline lake that is about 35 miles long and 9 to 15 miles wide with approximately 360 square miles of water surface area and 105 miles of shoreline. The surface of the Sea

^{*} The California UWA was developed and implemented in response to the federal Clean Water Action Plan released in February 1998. The UWA was a collaborative process between the State and the United States Environmental Protection Agency (USEPA) and was developed to guide allocation of new federal resources for watershed protection.

lies approximately 227 feet below mean sea level. The Salton Sea is a designated repository for agricultural return flows from the Imperial and Coachella Valleys. In 1924 and 1928, President Coolidge executed Public Water Reserve Order Numbers 90 and 114, respectively, for withdrawal of 123,360 acres of public land lying at an elevation of 220 feet below MSL, in and surrounding the Salton Sea. These lands were designated as a repository to receive and store agricultural, surface, and subsurface drainage waters. The State of California designated the Sea for this same purpose in 1968. The current inflow into the Salton Sea is about 1.3-million acre-feet per year, which is approximately equal to the rate of evaporation. Currently, the Sea is 25% saltier than the ocean (total dissolved solids concentration of 44,000 milligrams per liter), with salinity increasing at approximately 1% per year. It can also be classified as a eutrophic lake. The Sea supports a National Wildlife Refuge and is a critical stop on the Pacific Flyway for migrating birds, including several state- and federally-listed endangered and threatened species. The Sonny Bono Salton Sea National Wildlife Refuge was established in 1930 to preserve wintering habitat for millions of waterfowl and other migratory birds. However, catastrophic die-offs of birds and fish between 1992 and 1999 indicate the Sea is in serious trouble, and may be unable to support these beneficial uses in the future.

There is currently a joint local-federal effort underway to develop alternatives to restore the Salton Sea. The U.S. Bureau of Reclamation and the Salton Sea Authority (a Joint Powers Authority comprised of representatives from Imperial and Riverside Counties, the Coachella Valley Water District, and the Imperial Irrigation District) are the lead agencies. The Federal Salton Sea Reclamation Act of 1998 provided significant funding for the lead agencies to study alternative solutions to restoration of the Salton Sea. Current efforts focus primarily on salinity reduction/stabilization and stabilization of elevation. Strategic science planning being developed by the Salton Sea Science Subcommittee calls for studies and monitoring of the watershed to better understand the complex relationships between ecosystem health and stressors. Mr. Winston Hickox, Secretary of the California Environmental Protection Agency, has set high priority on the potential restoration of the Salton Sea (see memo dated December 8, 1999).

B. Overview of Water Quality Issues

The most significant water quality problems in the Salton Sea Transboundary Watershed are manifested by the severe impairment of the Salton Sea, its two major tributaries (the New and Alamo Rivers), and the Imperial Valley Agricultural Drains (hereafter "Imperial Valley Drains"). The water quality of the Coachella Valley Stormwater Channel is also of concern.

The New River originates in Mexico. It flows approximately 20 miles through the City of Mexicali, Mexico, crosses the International Boundary, continues through the City of Calexico in the United States, and travels northward about 60 miles until it empties into the Salton Sea. Its flow at the International Boundary is about 181 to 362 cubic feet per second (cfs) [118,220 to 264,530 acre-feet per year (AFY)]. The New River carries urban runoff, untreated and partially treated municipal wastes, untreated and partially treated industrial wastes, and agricultural runoff from the Mexicali Valley. In addition, the River carries urban runoff, agricultural runoff, treated industrial wastes, and treated, disinfected and non-disinfected domestic wastes from the Imperial Valley. It carries approximately 11 cfs (7,970 AFY) of treated wastewater, as permitted by the Regional Board under the National Pollutant Discharge Elimination System, from point sources in Imperial Valley. The New River flow at the Salton Sea has varied from 553 to 705 cfs (411,770 to 512,350 AFY). Eight NPDES permitted domestic wastewater treatment facilities discharge to the New River. Of these, three discharge disinfected effluent (~5.7 cfs) and five discharge nondisinfected effluent (~5.3 cfs). It is anticipated that disinfection will be universally required in the watershed soon. Urban runoff and domestic and municipal wastes in the New River carry significant amounts of pathogens, which pose a severe threat to public health, particularly near the International Boundary. Flow at the International Boundary is also high in several volatile organic

constituents (VOCs), likely from industrial discharges and petroleum products discharged to the New River.

The Alamo River originates approximately 2 miles south of the International Boundary with Mexico, and flows northward across the border for about 50 miles until it empties into the Salton Sea. The Alamo River is dominated by agricultural return flows from Imperial Valley. Its flow at the International Boundary is 2 to 4 cfs (1450 to 2900 AFY), whereas at its delta with the Salton Sea ranges from 680 to 902 cfs (499,020 to 654,130 AFY). It also carries approximately 15 to 27 cfs (10,867 to 19,200 AFY) of treated wastewater from point sources in Imperial Valley. Mexico has agreed to eliminate dry weather flow contributions to the Alamo River, although that commitment remains unfulfilled to date.

The Imperial Valley Agricultural Drain system comprises over 1,450 miles of constructed surface drains that discharge into the Alamo and New Rivers and the Salton Sea. The Ag Drains primarily carry agricultural runoff from the Imperial Valley. Agricultural discharges in the Imperial Valley range from 830,841 to 1,153,827 AFY, while averaging 994,812 AFY. Of this amount, approximately 44-48% is tailwater, 27-31% percent is tilewater, 13% percent is seepage, and 12% is operational spill. The resulting mix of tailwater (surface runoff), tilewater (subsurface drainage), and seepage contains pesticides, nutrients, selenium, and silt in amounts that exceed water quality standards.

Over 70% of the freshwater inflows to the Sea consist of agricultural drain water from Imperial Valley. Because the Sea has no outlet, salts concentrate in it and nutrients enhance the formation of eutrophic conditions. The Sea's salinity problem cannot be directly addressed from a strictly regulatory standpoint; rather a coordinated solution involving an engineered solution aimed at stabilization and/or restoration of salinity levels must be developed.

In addition to existing water quality impairments in the watershed, a pending petition to transfer water rights from the Imperial Irrigation District to San Diego County has serious water quality implications in the Salton Sea Transboundary Watershed. Depending on the methods employed to attain water conservation in the Imperial Valley, water quality of agricultural discharges will be different than it currently is. The concentrations of some pollutants are likely to decrease, while the concentrations of others are likely to increase. Of greatest concern is selenium, as it is discharged primarily as tilewater (subsurface drainage). The Imperial Valley Agricultural Drains and the Alamo River are already impaired by selenium. If water conservation practices focus on the reduction of tailwater (surface runoff), the concentration of selenium in drains is likely to greatly increase. Studies conducted by the US Fish and Wildlife Service and the Department of Interior's National Irrigation Water Quality Program show that fish and wildlife, including the many species of fish-eating birds and the endangered desert pupfish are currently at reproductive risk from selenium pollution⁵.

Another surface water problem of concern within the watershed is bacterial pollution in the Coachella Valley Stormwater Channel (CVSC) Urban run-off is the likely source of bacteria in the CVSC. Preliminary data from the U.S. Bureau of Reclamation also indicate that nutrients levels in the CVSC are of concern.

⁵ Source: Bennet, Jewell, *Biological Effects of Selenium and Other Contaminants associated with Irrigations Drainage in the Salton Sea Area, California 1992-1994*, National Irrigation Water Quality Program, December 1998.

C. Total Maximum Daily Loads

The Salton Sea, its major tributaries, the Alamo River, the New River, the Imperial Valley Drains, and the Coachella Valley Stormwater Channel, are listed on the Clean Water Act Section 303(d) list of impaired water bodies for this Region. Region 7 staff must develop and implement 15 TMDLs for these pollutants for the five listed water bodies in the priority Salton Sea Transboundary Watershed.

The majority of pollutants scheduled for TMDL development and implementation are NPS pollutants resulting from agricultural practices in the Imperial Valley. Regional Board staff committed to complete at least two TMDLs for the Salton Sea Watershed between July 1998 and April 2001. Specifically, Regional Board staff has committed to concurrent development of a TMDL for sediment in the Alamo River and a TMDL for pathogens in the New River. Draft copies of both of these TMDLs have been developed and have gone through peer review. CEQA documentation has also been completed and is being reviewed by the Office of the Chief Counsel. A Hearing for the Regional Board's consideration of adoption of Basin Plan Amendments to adopt the TMDLs and their implementation plans is tentatively scheduled in May 2001. Following adoption by the Regional Board, the State Board, and USEPA, the Regional Board will be responsible for oversight and tracking of TMDL implementation.

It is important to point out that, with the development of TMDLs, the resource demand for TMDL-related issues will neither subside nor remain constant. There are a few reasons for this. First and foremost is the fact that tracking and oversight demands will remain in place once the TMDL is part of a Regional *Water Quality Control Plan*. This resource demand will remain until the TMDL is achieved, and some level of oversight will likely be necessary for most TMDLs following achievement of TMDL targets. A second reason is that regular water quality monitoring activities are necessary to provide the feedback mechanism for tracking and oversight. Thirdly, many of the TMDLs being developed at this stage in TMDL development are less technically difficult than those that will have to be developed in the future. More technically challenging TMDLs will require more resources. And finally, there are likely to be challenges/petitions from dischargers on individual TMDLs. This will exert a resource demand on staff time.

TMDLs for Imperial Valley Surface Waters Impaired by Pollutants of Agricultural Origin

Pollutants of agricultural origin impair all major surface waters within the Imperial Valley portion of the Salton Sea Transboundary Watershed. In development of these TMDLs and their implementation plans, the Colorado River Basin Region is taking an approach referred to as “phased” and “geographically nested.”

In instances where there are insufficient data, USEPA Guidance⁶ allows for use of a “phased” approach to TMDL development and implementation. When implementing a phased approach, the numeric target, load allocations, waste load allocations, and margin of safety must be set; however, there is recognition that these numeric values may be altered by the collection and analysis of new data. Meanwhile, efforts by dischargers can be implemented to reduce pollutant loadings. Implementation efforts can be measured by water quality improvement, area of land covered by BMPs, numbers of BMPs implemented, or other appropriate measure. The phased approach provides for further pollution reduction without the delay of new data collection and analysis.

The “geographically nested” approach is one in which the entire affected watershed (the Salton Sea Transboundary Watershed) is analyzed under an umbrella program, but the program is divided into a series of nested programs at smaller, more manageable scales (e.g., drainage basins within sub-regional

⁶ Guidance for Water-Quality-based Decisions: The TMDL Process, US EPA, 1991

watersheds) for purposes of monitoring, source identification, identification and implementation of solutions, and participation by contributing sources and the public.

Use of the phased, geographically nested approach can lend itself to developing watershed-scale solutions. An example of one such approach is the Imperial County Farm Bureau (ICFB) Watershed Program. Early in the TMDL development process, the ICFB came forward with an offer to implement the California Farm Bureau Federation's Nonpoint Source Initiative. The Imperial County Farm Bureau is currently developing a watershed plan with schedules, milestones, and deliverables showing development and implementation of agricultural NPS pollution controls valley-wide. This plan may serve as their blueprint for on-the-ground outreach to agricultural producers and landowners in the Imperial Valley. The ICFB was awarded a Clean Water Act Section 205(j) water quality planning grant for SFY 01-02. Some of the activities that the Farm Bureau proposed to fund through the grant included:

1. Outreach to growers and landowners regarding the TMDL process and BMPs/other controls developed in the TMDL process. Specific goals:
 - Identify growers and landowners regardless of Farm Bureau membership.
 - Identify local Farm Bureau leaders to serve as nuclei of watershed working groups.
 - Provide information regarding the TMDL process and decisions resulting from the TMDL process.
 - Provide information on recommended BMPs and other controls.
 - Provide linkage to technical assistance agencies for BMP implementation assistance.
2. Outreach to encourage growers to implement BMPs/other controls. Specific goals:
 - Develop watershed working groups and demonstration BMP project within each sub-watershed.
 - Create model working groups of key growers in each affected watershed to lead growers in forming working groups for BMP controls consistent with TMDL implementation plan.
 - Develop resource referral materials to connect growers to sources of technical assistance.
 - Cooperate with technical assistance agencies in providing workshops and encouraging attendance.
3. Coordination with the Regional Board to develop a process for watershed groups to track and report on-the-ground implementation and BMP effectiveness. Specific Goals:
 - Develop a process for tracking and reporting implementation of BMPs to the Regional Board, subject to Regional Board approval.
 - Implement compiled tracking and reporting system for working groups and encourage adoption throughout watershed.
 - Work with Regional Board and technical assistance agencies to develop model protocols for landowner/grower on-site self-monitoring to supplement agency monitoring.

New River International Pollution TMDLs

The Regional Board is addressing the New River's water quality problems attributable to activities in the United States (e.g., agricultural drainage) through development and implementation of Total Maximum Daily Loads for the constituents impairing the river. The Regional Board expects that the US Environmental Protection Agency (USEPA) will be responsible for implementation of the TMDLs. Regional Board staff will continue to work cooperatively with the USEPA, the International Boundary and Water Commission, and our counter-parts in Mexico.

Salton Sea TMDLs

Water quality impacts to the Salton Sea from nutrients will be addressed through the development and implementation of Total Maximum Daily Loads for nutrients, sediment, and selenium in Salton Sea and its tributaries (sediment serves to transport nitrate and phosphate into receiving waters). Strong regulatory oversight may be required to encourage implementation of NPS pollution controls by the agricultural community.

Proposed TMDL Development Activities for SFY 01-02 (See Appendix H)

1. Development of a sediment TMDL for the Imperial Valley Agricultural Drains
2. Development of a pesticide TMDL for the Alamo River
3. Development of the Palo Verde bacteria TMDL
4. Development of a nutrient TMDL for the Salton Sea

Proposed TMDL Implementation Activities for SFY 01-02 (See Appendix H)

1. Tracking and oversight of sediment TMDL implementation
2. Sediment TMDL Implementation Water Quality Monitoring
3. Implementation of the New River pathogen TMDL

D. NPS Control

Past Efforts to Address NPS Pollution in the Colorado River Basin Region

In the past, Regional Board regulation of NPS discharges has been primarily at the Tier 1/Self-Determined level, although one could argue that previous staff-level agreements with the Imperial Irrigation District constitute a Tier 1.5 activity. In 1992, the Regional Board adopted an “Agricultural Drain Management Report” (ADM Report, March 1992). The report identified the major drainage entities (Imperial Irrigation District, Palo Verde Irrigation District, Coachella Valley Water District, and Bard Water District) and contained a time schedule for the development of Best Management Practices (BMPs) by the drainage entities (i.e., water districts) and locations at which compliance with applicable standards was to be determined. A Regional Board surveillance and monitoring program, dependant on the availability of funding, was also described in the ADM Report. Inadequate progress toward meeting the milestones set forth in the ADM Report lead to a December 1993 letter from the Regional Board’s Executive Officer the Imperial Irrigation District (IID), requesting that IID take “accelerated action to address degraded water quality conditions in Imperial Valley drainage ways.” As a result, the IID entered into a staff-level agreement entitled the “Drain Water Quality Improvement Plan” (June 7, 1994). The DWQIP was focused on silt load reduction. In the DWQIP, IID agreed to:

- submit a list of applicable Best Management Practices (BMPs) and a detailed workplan describing a program to test the pollution prevention ability and cost effectiveness of two of the identified, on-farm, sediment reduction BMPs;
- submit a proposal to conduct BMP education and outreach directed toward the Valley’s agricultural producers, and, following Regional Board approval, implement that program in a timely fashion;
- implement a drain water quality monitoring program, including inflow monitoring, drain water monitoring, chronic toxicity testing, and biological and sediment testing; and
- submit a report delineating the major discharges into the drain system.

Of these tasks, IID successfully completed the BMP report, the main drains report, and most components of the drain water quality monitoring program (1996 through 1998). Due to the State’s shifted emphasis of utilizing TMDLs as a NPS pollution control tool, staff decided to re-evaluate the DWQIP and revise the plan to fit the needs of TMDLs. IID did implement one BMP project, a sedimentation basin; however, IID staff were unable to quantify the effectiveness of the practice. In general, the water quality

and flow monitoring program is inadequate to quantify the flow and water pollutant contributions of the “minor drains,” which comprise about 60% of the flow to the Alamo River. Figure 2, located on the following page, shows the IID drain system, with the “major drains” in the Alamo River watershed shown in color. In addition, the Technical Advisory Committee formed as part of the DWQIP was not all-inclusive, as its members were comprised entirely of IID staff, agricultural producers, and agricultural industry representatives. In order to adequately characterize the flow and water pollutant contributions to the New and Alamo Rivers, staff will request that IID revise its DWQIP monitoring program to include water quality monitoring and flow gauging at a statistically significant number of minor drain stations to provide data that characterizes the temporal and spatial loading of pollutant loadings to the waterbodies within the Salton Sea Transboundary Watershed.

Based on the regional nonpoint source control goals and objectives, the following activities are proposed for SFYs 01 through 06.

Proposed NPS Activities for SFY 01-02

Proposed NPS grant activities are listed here, and are expanded upon in Appendix J, Table J-7.

Activity	Management Measures the Activity is Implementing	PY	Contract \$
1. Grant Management and Solicitation	1A, 1C, & 1G	0.7	
2. Sediment TMDL Implementation Planning and Monitoring	1A & 1C	1.2	\$140,000
3. Sediment TMDL Implementation	1A, 1C, 1F, 1G	0.5	
4. Bacteria Implementation Planning, Monitoring and Implementation	1G	0.4	\$40,000
5. Selenium TMDL Implementation Planning and Monitoring	1A, 1G, 1F	0.5	\$80,000
6. NPS Program Management	1A, 1C, 1D, 1F, 1G	0.5	
7. Nutrient TMDL Implementation Planning and Monitoring	1A, 1F, 1G	0.7	
8. Stakeholder Outreach/Involvement Efforts	1A & 1G	0.3	
<ul style="list-style-type: none"> • TMDL Technical Advisory Committee; • Salton Sea Authority/ Salton Sea Technical Advisory Committee/ Salton Sea Science Subcommittee; • Technical assistance, oversight, and tracking implementation of the Imperial County Farm Bureau Nonpoint Source Initiative. 			

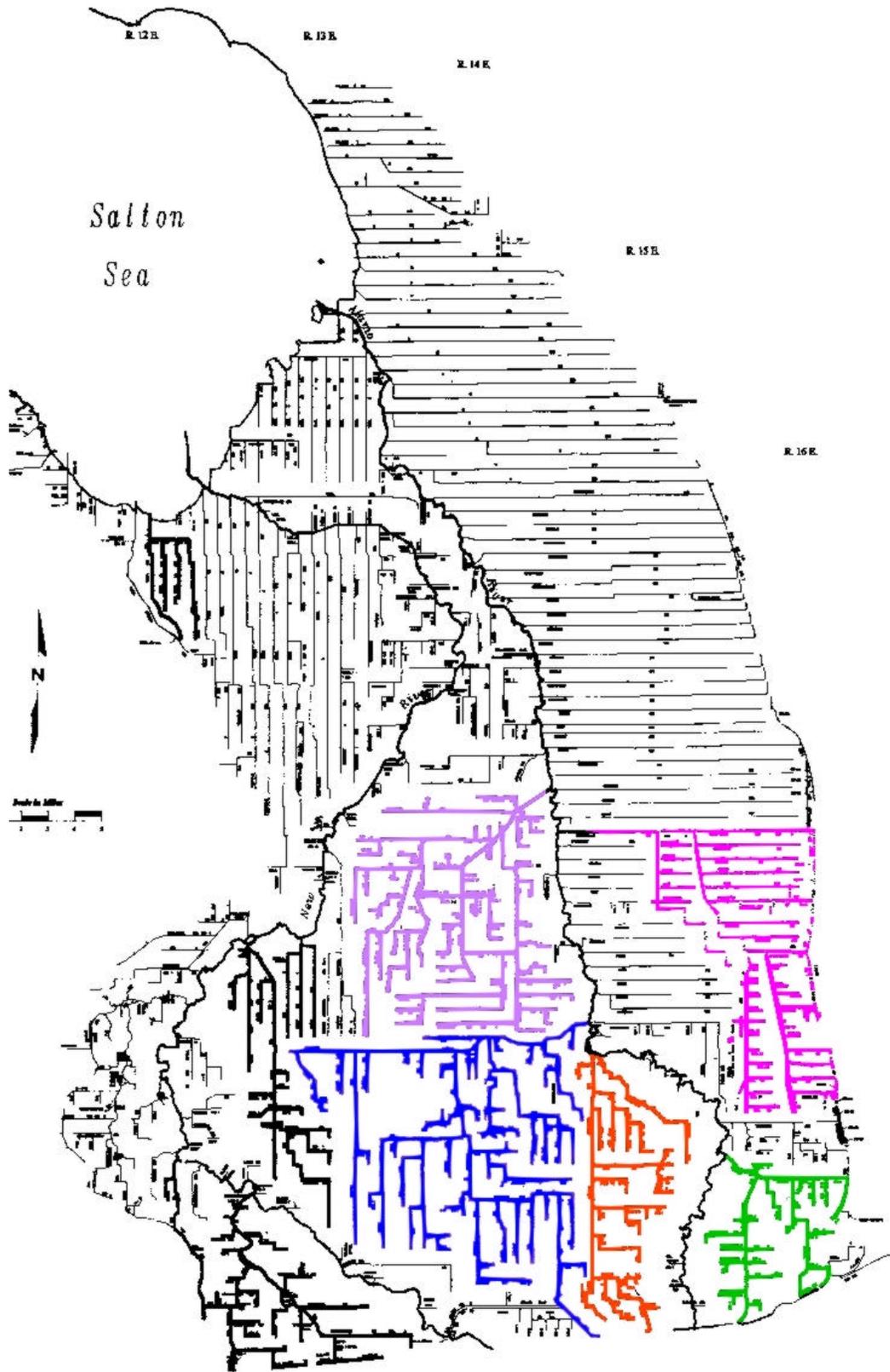


Figure 2. IID Drain System.

E. New River/Mexicali Sanitation Project

Bacterial pollutants originating in Mexico will need to be addressed by successfully negotiating construction and operation of wastewater disinfection facilities with Mexico, and eliminating remaining discharges of raw sewage into the New River. Binational cooperation is on going to repair existing wastewater infrastructure (in Mexicali), and to construct a new wastewater treatment plant, which will be known as Mexicali 2. These efforts should significantly reduce the volume of untreated wastewater flowing into the US from Mexico.

The USEPA, United States Section of the International Boundary and Water Commission (IBWC), RWQCB, SWQCB, Imperial County, and the Imperial Irrigation District (IID) for the U.S; and their counterparts in Mexico (e.g., CILA, CNA, CESP, etc.) are working together in the New River/Mexicali Project, which is a binational effort established by the U.S. and Mexico to address overall New River pollution from the Mexicali Valley. The USEPA, through the U.S. Section of the IBWC, is the U.S. lead agency for this binational effort, which includes a Policy Committee and Technical Advisory Committee. The RWQCB and SWRCB are members of these committees. Therefore, RWQCB staff plans to make its current binational activities a part of its TMDL activities for the New River. The USEPA provided funding for the RWQCB's binational activities through FY 2000-2001. In addition, USEPA provided funding to the RWQCB in 1998 to conduct a special water quality study of New River pollution at the International Boundary. The USEPA informed the State Board and Regional Board that it lacks resources to continue to fund the Boards' border activities. Regional Board staff is pursuing alternate sources of funding for its border activities through the Division of Clean Water Programs (CWP). A proposal for funding, together with a workplan, was submitted to CWP for consideration in March 2001. Staff believes its binational activities are essential for development and implementation of TMDLs for bacteria, nutrients, organic loading (biological oxygen demand), and pesticides in the New River.

F. Groundwater

In this desert region, groundwater basins of high quality are a precious commodity and must be given the highest protection. As the population in the region increases, water quality impacts are occurring. Three groundwater/drinking water quality issues of significant importance are: nitrate pollution of the Coachella Valley aquifer; a nitrate plume in the upper desert groundwater basin of Lucerne Valley; and a nitrate plume in the Desert Hot Springs groundwater basin.

Groundwater resources are of critical importance to the sustenance of this Region's urban populations. The Coachella Valley Groundwater Aquifer provides 25 billion gallons of water annually to the Valley's 62,000 homes and businesses. Between 72 and 80 wells are operated by the Coachella Valley Water District (CVWD) at any one time to meet the water demands of its customers. These wells range in depth between 900 and 1,200 feet, although water usually is found in less than 250 feet. In addition, CVWD provides water delivery services for agricultural irrigation. Other primary groundwater resources utilized for municipal supply include the Desert Hot Springs Aquifer and the Mission Hot Springs Aquifer.

- LUCERNE VALLEY

Disposal of domestic wastewater through evaporation/percolation ponds by the Big Bear Area Regional Wastewater Agency (BBRWA), agricultural practices, and septic systems are the suspected sources of the nitrate problem in Lucerne Valley. The full extent of the plume has not been determined, but it spreads several miles and threatens over 15 private supply wells. Regional Board staff lacks the funds to develop a comprehensive groundwater monitoring program to determine the extent of the pollution. However, staff intends to continue working with the BBRWA to address the overall nitrate problem in Lucerne Valley.

- COACHELLA VALLEY

Nitrate groundwater contamination is present in the Coachella Valley Groundwater Aquifer, which is essentially the sole source of drinking water supply for virtually all of the Coachella Valley. Several municipal wells belonging to the Desert Water Agency in Palm Springs are already restricted in use because the water in those wells shows nitrate concentrations of up to 70 milligrams per liter, which are above the State Maximum Contaminant Level of 45 mg/l. Discharges of wastes from individual domestic septic tanks/leachfield systems, water recycling, widespread application of fertilizers, and discharges of domestic wastes to evaporation/percolation ponds are the likely source of the nitrate contamination.

- **DESERT HOT SPRINGS AND MISSION SPRINGS**

The cause of the nitrate problem in Desert Hot Springs is a high density of septic tank/leachfield systems. Several domestic wells in Desert Hot Springs show nitrate at concentrations already exceeding the State Maximum Contaminant Level (MCL) for nitrate, but the extent of this plume has not yet been determined either. Regional Board staff lack the resources to develop a comprehensive monitoring program to do so.

The Desert Hot Springs and Mission Springs Aquifers were deemed so threatened by discharges from onsite treatment and disposal systems that the State Congress passed Senate Bill 1852, which requires the RWQCB to prohibit the discharge of wastewater from existing or new septic systems on parcels of less than 1/2 acre that overlie the Mission Creek and Desert Hot Springs aquifers, provided the availability of sewers within 200 feet of the property. Enforcement of this wholly unfunded mandate will impose a serious financial burden on this Region. As resources allow, Board staff intends to assist stakeholders in Desert Hot Springs in addressing these problems. The Mission Springs Water District (MSWD) is in the process of securing funding for a project that involves the abatement of septic tanks and installation of a sewer system in this area. Regional Board staff is working with MSWD to apply for a grant through the Proposition 13 program. It is estimated that education and enforcement of this mandate requires 1.0 PY.

G. Stakeholder Involvement

One of the cornerstones of the Watershed Management approach is stakeholder involvement. This requires a commitment of active participation by Regional Board staff, usually for extended periods of time. Staff participation may facilitate accomplishment of water quality goals where direct regulatory authority and/or program resources are not available. In general, stakeholder groups in Region 7 are well organized and highly motivated to address the serious water quality concerns of the Region.

The following are the stakeholder groups within the priority watershed.

- **Sediment TMDL Technical Advisory Committee (TMDL TAC)** - A new stakeholder group was created in 1998 by RWQCB staff to assist in development of sediment TMDLs for sediment-impaired water bodies in Imperial Valley. This TMDL TAC consists of representatives from IID; federal, state, and local governments; the Imperial County Farm Bureau; other private-sector agricultural interests in Imperial Valley; the U.S. Fish and Wildlife Service, U.S. Bureau of Reclamation (USBR), Salton Sea Authority, and the Audubon Salton Sea Task Force. The TMDL TAC is focused on participating in the TMDL process with Regional board staff, and providing technical input on TMDL development and implementation. In recent months, the TMDL TAC has provided detailed recommendations to RWQCB staff for their consideration in development of the sediment TMDL implementation plan.
- **Pathogen TMDL TAC**—The Binational TAC (US-Section) serves as the TMDL stakeholder group to assist in development and implementation for the bacteria TMDL for New River at the International Boundary.

- Salton Sea Authority—A major stakeholder group in the priority watershed is the Salton Sea Authority. This is a Joint Powers Authority created to address the severe environmental problems facing the Salton Sea. Currently, a Cal-Fed organizational process consisting of State, Federal, and Local agencies is being implemented to guide decision-makers in evaluation of options to restore the Sea and to provide a structure for the environmental review process. The US Bureau of Reclamation and the Salton Sea Authority have joint lead-agency role for the restoration project.
- Citizens Congressional Task Force on the New River—This group is coordinating a constructed wetlands project to treat polluted agricultural drainage waters prior to discharge into the New River. The Task Force includes private citizens and representatives from federal (USBR, USGS, and USFWS), state (e.g., DFG and RWQCB), and local governments (e.g., Imperial County and IID); educational institutions (e.g., UC-Riverside and Imperial Valley College), and other non-profit organizations. Imperial County and the Citizens Task Force have partnered and been awarded funding for a Clean Water Act (CWA) 319(h) Grant for 1998 for this project. This project will also receive funding from USEPA. Regional Board staff is a member of the Task Force.
- Tribal Water Consortium—Three Indian tribes holding lands throughout the Coachella Valley have formed a Tribal Water Consortium to address groundwater quality issues on reservation lands. This Consortium has been awarded a CWA 319(h) Grant set to begin in March 2001 and end May 2002.

H. Monitoring, Assessment, and Reporting

As stated in Section 1.5F of this Chapter, water quality monitoring and assessment are essential components to fulfilling the Regional Board's water quality goals and objectives. In no area of the Region is this more evident than the Salton Sea Transboundary Watershed. Water quality data are necessary to:

- Successfully complete of technically valid TMDLs;
- Assess the water quality improvement gained through implementation of actions designed to meet TMDL load allocations;
- Provide a sound basis for recommending water bodies for listing or de-listing on the 303(d) list; and
- Aid in the scientific efforts to address restoration of the Salton Sea.

SFY 00-01 TMDL Monitoring Money

For SFY 00-01, the Colorado River Basin Region was allocated \$226,440 in contract dollars for the purpose of sediment TMDL monitoring, including analyses for other pollutants of concern that are transported by sediment (e.g., organochlorine pesticides, nutrients). Regional Board staff have developed an Invitation for Bid for use of these dollars. Staff has also developed and implemented QAPP's for Palo Verde Outfall Drain and Alamo River monitoring.

Two intensive study monitoring and assessment programs are proposed: (1) a Salton Sea Transboundary Watershed Monitoring Program and (2) a New River International Pollution Sampling Program. The uses of data obtained through implementation of these programs and a description of the monitoring stations, sampling frequency, and parameters of interest are discussed below. The Workload matrices for the two proposed programs located in Tables 2 and 3.

1. Regional Board Monitoring – A Salton Sea Transboundary Watershed Monitoring Program

Although significant funding has been allocated to entities within the Region for study of the Salton Sea (e.g., the Salton Sea Authority), little of this money has been for monitoring of water quality pollutants of concern in the watershed. In the Salton Sea Science Subcommittee's draft "Strategic Science Plan," it is

stated that long-term monitoring activities are primarily funded by cooperative state and federal agencies that use their internal budget processes to address restoration project data needs. In SFY 2000-01, a one-time sum of \$350,000 was allocated to this program. The majority of these funds are being used to fund two studies of the Salton Sea's water quality. A nutrient cycling study will be done by UC Riverside Department of Environmental Science and a study of contaminant loading and transportation in the Sea's tributaries will be done by the US Geological Survey.

2. Regional Board Monitoring – New River International Pollution Sampling Program

Discharges of wastes from Mexico pollute and pose a significant threat to water resources along the US – Mexico Border. The waterbodies that are specifically impacted include the New and Alamo Rivers in Imperial County.

The Regional Board is currently implementing a program aimed at achieving the following objectives:

1. Evaluate the fate and transport of discharges from Mexico within the New River in the 60-mile border area in California;
2. Develop control mechanisms (e.g., Basin Plan amendments) to protect California's water resources along the 60-mile border;
3. Provide technical information and assistance to planning authorities to ensure that appropriate pollution control measures in Mexico are developed;
4. Work with the US Federal government to ensure that necessary measures are taken to clean up existing pollution and to prevent further degradation of water resources.

3. Volunteer Monitoring

Although no volunteer monitoring programs are currently established, there is significant interest in development of a volunteer monitoring program in the Salton Sea Transboundary Watershed. One volunteer monitoring program would focus on the Desert Wildlife Unlimited constructed wetlands demonstration project. This project is truly a Good Samaritan-led effort to treat agricultural drain water and polluted New River water. Desert Wildlife Unlimited, the group leading the effort, would very much like to utilize volunteer monitoring, in coordination with the local schools, to assess the performance of the wetlands in treating polluted water. Another volunteer monitoring program, which would likely be coordinated through the Imperial County Farm Bureau is development of self-monitoring protocols and monitoring kits for the purpose of on-farm assessment of management practices.

2.2 Lower Colorado River Watershed

A. Lower Colorado River Watershed

The Lower Colorado River Watershed is in the extreme southeastern part of California, encompassing the eastern portion of San Bernadino, Riverside, and Imperial Counties. It is bounded on the east by the Colorado River, which forms the Arizona-California state line; on the south by the International Boundary with Mexico, and on the west by (north to south) the New York, Hack Berry, Sacramento, Step Ladder, Turtle, Arica, Granite, Little Maria, McCoy, Mule, Chocolate, and the Cargo Muchacho Mountain Ranges. It should be noted however that portions of the above boundaries are political only. Geographically, the Lower Colorado River Watershed represents only a small portion of the total Colorado River drainage area in the U.S. and Mexico. Within the U.S., the drainage area of the Colorado River includes portions of the states of Wyoming, Colorado, Utah, Nevada, Arizona, New Mexico, and California. The Lower Colorado River Watershed is designated as that portion of total drainage area of the Colorado River, in the U.S., that is located below Lee Ferry near Glen Canyon Dam.

The watershed is 200 miles long, with a maximum east-west width of 70 miles. The area is characterized by desert valleys and low mountains that are generally less than 4,000 feet above mean sea level (msl). The highest peak rises 4,860 feet above msl.

(Hydrologic Units contained within the Salton Sea Transboundary Watershed are listed in Appendix K.)

B. Overview of Water Quality Issues

Water quality issues within the Lower Colorado River Watershed include:

- Bacterial impairment of the Palo Verde Outfall Drain
- Potential agricultural pollution of the Palo Verde Irrigation District drainage system;
- Perchlorate, bacteria, arsenic, and salt pollution in the Lower Colorado River.

C. Underground Storage Tanks

Because of its location, the City of Blythe has been and still is a fueling station for traffic to and from Los Angeles and Phoenix. As a result, the City of Blythe covers a relatively small area with a large number of UST releases. Most of these contaminant “plumes” are commingled (combined) or in close proximity to one another, rendering independent clean up nearly impossible. To expedite and streamline cleanup of these plumes, the Regional Board’s Executive Officer and the Blythe’s City Manager entered into a Memorandum of Understanding that allowed Blythe to coordinate its cleanup effort. This approach has become a model for commingled plumes throughout the State and consequently inspired the Legislature to enact commingled plume legislation (SB 562).

D. Total Maximum Daily Loads

The Palo Verde Outfall Drain is listed by the Regional Board as impaired by bacteria. It is thought that septic tanks nearby the Palo Verde Lagoon are contributing to the bacterial impairment of the Drain. In SFY 00-01, Regional Board has been conducting monitoring investigations pursuant to the QAPP. Regional Board staff collected water samples from the Palo Verde Lagoon in December 2000 and January 2001. Staff will continue with Palo Verde Lagoon sampling to form the basis of a TMDL and its implementation plan.

E. Stakeholder Involvement

Communities along the Colorado River representing three states and two Indian tribes have formed a Coalition to address the serious water pollution resulting from overuse of septic systems by resort parks along the River. The Regional Board may not have direct regulatory authority to remedy this problem, but staff can assist the stakeholder group in seeking legislative assistance or other mechanisms needed to address this serious threat to a major source of drinking water.

2.2 Hi-Desert Groundwater Basins

A. Hi-Desert Groundwater Basins

The Hi-Desert Groundwater Basins are located in the Mohave Desert of southeastern California. (The watershed encompasses the areas referred to as the “Lucerne Planning Area” and the “Hayfield Planning Area” in the Regional Basin Plan.) The watershed is bounded on the north by the New York, Providence, Granite, Old Dad, Bristol, Rodman, and Ord Mountain Ranges; on the east by the New York, Hack Berry, Sacramento, Step Ladder, Turtle, Arica, Granite, Little Maria, McCoy, Mule, Chocolate Mountain Ranges; on the west by the Ord, Sidewinder, Granite, San Bernadino, San Jacinto, and Laguna Mountain Ranges; and on the south by the (west to east) San Bernadino, Little San Bernadino, Eagle, Chuckwalla,

and the Chocolate Mountain Ranges. Hydrologic Units contained within the Salton Sea Transboundary Watershed are listed in Appendix K.

B. Ground Water Quality Issues

Disposal of domestic wastewater through evaporation/percolation ponds by the Big Bear Area Regional Wastewater Agency (BBRWA), agricultural practices, and septic systems are the suspected sources of the nitrate problem in Lucerne Valley. The full extent of the plume has not been determined, but it spreads several miles and threatens over 15 private supply wells. Regional Board staff lacks the funds to develop a comprehensive groundwater monitoring program to determine the extent of the pollution. However, staff intends to continue working with the BBRWA to address the overall nitrate problem in Lucerne Valley.

Section 3. *Regionwide Activities*

Regionwide activities fall into five categories: (1) policy planning and development; (2) core-regulatory (programs that are not an integral part of the watershed management activities); (3) nonpoint source pollution control; (4) groundwater; and (5) monitoring, assessment, and reporting.

3.1 Planning and Policy Development

A. Triennial Review Issues

Section 303 of the Federal Clean Water Act (CWA) requires that the State hold public hearings for the purpose of reviewing applicable water quality standards (WQS), and as appropriate, modifying and adopting standards. Section 130 of Title 40 of the Code of Federal Regulations (CFR) also prescribes this requirement. Further, Section 13240 of the California Water Code (CWC) requires the State to formulate regional water quality control plans (a.k.a. Basin Plans) and periodically update the plans. WQS correspond to the beneficial uses and water quality objectives (WQOs) contained in Basin Plans. The Basin Plan is a master water quality control planning document, which essentially has five components: (1) Identifies the waters of the Basin; (2) Designates the beneficial uses of those waters; (3) Establishes WQOs for the protection of those uses; (4) Prescribes an implementation plan (i.e., actions to be taken to enforce the WQS); and (5) Establishes a monitoring and surveillance program to assess the implementation efforts. The Regional Board concluded its Triennial Review of the Basin Plan in June 1999. During the review, the following issues were adopted by the Regional Board:

- *Review of Beneficial Use Designations for Surface Waters* – Prepare Basin Plan Amendments as needed to reflect results of the “1999 Colorado River Basin Region Surface Water Survey”, which is part of the reaffirmation requirements for current WQS. Staff has a draft report on the Survey. It is estimated that the amendment can be completed with 0.2 PYs of existing staff resources.
- *Salton Sea Issues* – Review pertinent issues pertaining to the Salton Sea within the broader framework of the Salton Sea Restoration Project and revise the Basin Plan accordingly. It is estimated that this activity can be completed with 0.2 PYs of existing staff resources.
- *Correction of Errors, Outdated Information and Inclusion of Referenced Policies* – Draft a Basin Plan Amendment that corrects errors and outdated information in the 1994 updated Basin Plan and includes copies of the policies referenced in Section 5 of the 1994 updated Basin Plan. This task was completed while developing the Basin Plan Amendment for the Alamo River Sediment TMDL.
- *Beneficial Use Designation of Aquifers* – The beneficial uses of groundwater for this region are currently based on hydrologic units. Available groundwater data should be reviewed and

recommendations made to identify the beneficial uses of individual groundwater aquifers within the various hydrologic units. It is estimated that the Regional Board will need about 0.7 PYs of additional resources to complete this activity.

- *Water Quality Objectives for Nitrates and Total Dissolved Solids (TDS)* – Groundwater beneath multiple areas including but not limited to Pinyon, Cathedral City, and Desert Hot Springs is showing significant increases in total dissolved solids and nitrates. The water quality objectives for nitrates and TDS for groundwater be reviewed to determine whether they are adequate to protect groundwater quality. It is estimated that the Regional Board will need at least 1.0 PYs of additional resources to complete this activity.
- *Guidelines for Sewage Disposal from Land Developments* – These guidelines were developed in 1979 and do not include consideration for population density, distance to underground utilities or potential receptors. Effluent from septic tank/leachline systems has been estimated to contain up to 70 mg/l of nitrogen (as nitrate), which poses a significant threat to groundwater quality. The guidelines should be reviewed/updated accordingly and incorporated into the Basin Plan via an amendment. It is estimated that the Regional Board will need at least 1.0 PYs of additional resources to complete this activity.
- *Water Recycling Policy* – California is being asked to live within its means regarding its allocation of Colorado River water (4.4 Plan). Wastewater disposal to surface waters and through evaporation/percolation should not be considered a permanent disposal solution when the potential exists to recycle the water. Staff believes that a policy encouraging recycling and ensuring that every application for a permit to discharge waste/pollutants evaluates recycling the water needs to be developed. Develop the policy and incorporate it into the Basin Plan via an amendment. It is estimated that this activity can be completed with 0.1 PYs of existing staff resources.
- *Border Pollution Issues* – Review pertinent issues and WQOs for the New River at the International Boundary and revise the Basin Plan accordingly. Part of this task has already been completed in the development of the New River pathogen TMDL. It is estimated that this activity can be completed with 0.2 PYs of existing staff resources.

B. Geographic Information Systems

A Geographic Information System (GIS) is an organized collection of computer hardware, software, geographic data, and personnel designed to efficiently and effectively capture, store, update, manipulate, analyze, and display all forms of geographically referenced information. Regional Board staff has acquired the hardware and software to support a Regional GIS. The GIS will provide support to basin planning activities, watershed management, development and implementation of TMDLs, and underground tanks. Staff has also begin to acquire and integrate geographic data into the system and utilize its capabilities. To utilize this technology to its full potential further staff resources will be directed towards locating acquiring, integrating and managing geographic and geographically referenced data from multiple sources.

Groundwater Mapping

As an important step to fulfilling the regional goal of protecting the groundwater of the Coachella Valley, groundwater resources and water quality impacts must be mapped.

- *Coachella Valley Groundwater Quality and Valley Wellhead Protection*
- *Mission Springs Water District Onsite Disposal System Mapping*

- *Yucca Valley Groundwater Mapping*

C. TMDL Amendments

The Basin Planning Unit is responsible for coordinating the Basin Plan Amendments for each TMDL. It is estimated that this requires approximately 0.4 PY per TMDL. In addition, Triennial Review of TMDLs is estimated to require approximately 0.2 PY per TMDL.

3.2 Core-Regulatory

A. NPDES

Under Section 402 of the Clean Water Act (CWA) all point source discharges of pollutants to waters of the United States (including lakes, rivers, wetlands, etc.) must be authorized under a National Pollutant Discharge Elimination System (NPDES) permit. There are a few exceptions for discharges such as return flows from irrigated agriculture, and runoff from agricultural crop lands and forest lands. Additionally, certain point source discharges of storm water are not currently required to have NPDES permits, although many types of storm water (including storm water discharges associated with industrial activity and construction activity disturbing five or more acres, and discharges from large cities' storm sewer systems) are regulated under the NPDES permit program. The discharge of dredged and fill materials into waters of the United States is not regulated under NPDES permits, but is subject to permit requirements under Section 404 of the CWA. These permits are issued by the U.S. Army Corps of Engineers. Pursuant to Section 402 of the Clean Water Act (CWA) and to Section 13370 of the California Water Code (CWC), the U.S. Environmental Protection Agency (U.S. EPA) has approved the State's program to issue NPDES permits.

NPDES permits issued for point sources must contain provisions for the discharge to meet water quality-based provisions of Section 301 of the CWA. This means that discharges may not contain pollutants or characteristics in levels which would cause the receiving water body to fail to meet a water quality standard set by the State or the USEPA for that water body. In addition, discharges must meet the technology-based requirements of Section 301 the CWA. In other words, discharges must meet an acceptable level of pollution control for that type of discharge, regardless of whether or not that level of control is specifically needed to protect the water body to which the discharge is directed. In short, water quality-based standards are designed to protect specific water bodies, and technology-based standards are designed to assure a minimum level of control for a particular class of discharge, no matter where that discharge takes place.

In addition to direct discharges to waters of the United States, industrial discharges to sanitary sewer systems must also meet standards of performance including industry-specific technology-based standards, and other local limitations designed to protect the wastewater treatment plant to which the indirect discharge is directed, as well as the receiving water to which the wastewater treatment plant itself discharges. In the case of these "indirect" discharges, NPDES permits are not required, but pollution control standards are generally implemented through locally-issued permits under the Industrial Pretreatment Program.

Whether discharges are authorized under NPDES permits or under the industrial pretreatment program, the most stringent applicable control requirements must be met. Dischargers are required to monitor and report compliance with the conditions of their permits on a regular basis. Failure to meet the conditions of an NPDES permit or the Industrial Pretreatment Program constitutes violation of the CWA, and USEPA

and authorized states may bring a range of enforcement actions for such violations. In addition, citizens may bring suits for CWA violations under Section 505 of the CWA.

Under the USEPA NPDES classification system, any municipal Waster Water Treatment Plant (WWTP) with design flows equal to or greater than one million gallons-per-day (MGD) and those with design flows less than one MGD but with actual or potential adverse environmental impacts are classified as major dischargers. In Region 7, there are 12 major NPDES permits and 20 minor NPDES permits. The permit reissuance schedules for major and minor NPDES permits are located in Appendices A and B, respectively.

Compliance activities include all activities necessary to determine if discharges are in compliance with waste discharge requirements, NPDES permits, and related enforcement orders. Such activities include the following:

1. All activities necessary to prepare for scheduled compliance inspections.
2. Compliance inspections, including travel.
3. Any documentation resulting from inspections, including completion of inspection forms, photographs, and correspondence to discharger.
4. Review of Discharge Monitoring Reports (DMRs) and Self Monitoring Reports (SMRs).

Compliance inspections are classified as either Level A or Level B, with Level A being more thorough. The objectives of each inspection category are as follows:

There are two levels of inspections for NPDES permitted facilities, Level A and Level B. The objective of a Level A inspection is to provide a comprehensive assessment of a discharger's compliance with its NPDES Permit or Waste Discharge Requirements (WDRs). The objective of a Level B inspection is to provide an expeditious, condensed assessment of a discharger's compliance with effluent and receiving water limitations, self-monitoring and reporting program requirements, and other specifications in the NPDES Permit or WDRs. This level of inspection is useful for assessing potential problems and trends in facility performance, and for keeping active communication between the Regional Board and discharger.

Annual compliance inspections (Level A or B) should be made to all dischargers. The following table, copied from the NPDES Program Workplan, shows the average annual frequency and level-of inspections that should be followed:

<u>Majors</u>			<u>Minors</u>			<u>Total</u>
<u>A-level</u>	<u>B-level</u>	<u>Total</u>	<u>A-Level</u>	<u>B-level</u>	<u>Total</u>	<u>Wastewater</u>
13	0	0	15	2	17	30

The NPDES Compliance Inspection Schedule for the next five fiscal years is located in Appendix E.

B. Chapter 15

Title 27 and Chapter 15 include programs for regulation of waste discharge to land for treatment, storage and disposal in waste management units such as waste piles, surface impoundments, and landfills. Chapter 15, Title 23, California Code of Regulations, contain regulatory requirements for hazardous waste. Title 27, California Code of Regulations, contain regulatory requirements for wastes other than hazardous waste.

The Chapter 15 Program is part of the Core Regulatory Program for waste treatment, storage, or disposal sites. Statute specifically requires the State Water Resources Control Board to develop regulations to

"ensure adequate protection of water quality and statewide uniformity in the siting, operation, and closure of waste discharge sites." These regulations are found in California Code of Regulations [CCR] Title 27 [solid waste, including mining waste] and CCR Title 23, Division 3, Chapter 15 [hazardous waste]. The regulations establish a classification system for waste and disposal sites and include requirements for siting, construction, operation, monitoring and cleanup, and closure. Program functions include issuance and amendment of waste discharge requirements, inspections to determine compliance, review of dischargers' self-monitoring reports, review of other technical reports, review of closure plans, and informal and formal enforcement actions. Statewide, the Program includes over 1100 waste treatment, storage, or disposal sites (landfills, surface impoundments, waste piles, and land treatment units).

The Chapter 15 Waste Discharge Requirement updates and rescissions schedule is located in Appendix G.

3.3 Nonpoint Source Pollution Control

Effective NPS pollution control must utilize a consistent approach regionwide, and indeed, Statewide.

Regional NPS Control Program

Consistent with the 1999 "Plan for California's Nonpoint Source Pollution Control Program," the Regional NPS Management Plan for Region 7 includes:

- Implementation of the "Plan for California's Nonpoint Source Pollution Control Program";
- Implementation of the Regional Basin Plan;
- Implementation of other applicable statewide plans and policies;
- Development and implementation of Total Maximum Daily Loads for impaired and threatened surface waters (as funded);
- Implementation of Regional planning and prioritization through the WMI;
- Completion of annual workplans;
- Coordination with local governments in the development of General Plans;
- Implementation of the three-tiered approach to NPS Regulation;
- Financial and technical assistance;
- Formal agreements (Memoranda of Understanding and Management Agency Agreements);
- Public participation and coordination with stakeholders and cooperating agencies (as funded);
- Water Quality Monitoring and Assessment and Regular Reporting (as funded);
- Assessment of Management Measure Effectiveness (as funded).

It should be noted that all of the above points are recognized as critical to a successful NPS program. Some of these points are not currently being implemented to their full NPS control potential (e.g., formal agreements, implementation of the Three-Tiered approach). Efforts are underway to strengthen these elements of the NPS pollution control program. Additionally, and as mentioned at length elsewhere in this document, water quality monitoring activities are underfunded and are of critical importance to the success of water quality control efforts.

To address nonpoint source inputs, Regional Board staff will utilize tools from the nonpoint source program, including the Three Tier Approach and implementation of NPS Management Measures. It will be necessary, however, to utilize the tools from several other programs to address nonpoint source discharges in this region. These programs include, but are not limited to the Core Regulatory Program, the TMDL program, and watershed planning.

One obstacle to NPS control has been the lack of guidance defining activities under the "tiers" and the mechanisms or triggers to guide movement from one tier to another. Lack of consistent funding has exacerbated this problem. With regards to implementation of the tiered approach related to agriculture,

draft guidance was developed by the Irrigated Agriculture Roundtable (IAR). Region 7 staff actively participated in the IAR. This document will be used to address issues concerning implementation of irrigation management practices pursuant to TMDLs. In general, though, it should be stated that sequential movement through the tiers (e.g. Tier 1 to Tier 2 to Tier 3) is not required of the Regional Board. Depending on the water quality impacts and severity of the NPS problem, the Regional Board may move directly to the enforcement actions specified in Tier 3.

Triggers to move from Tier 1 into more stringent regulatory modes could include the following:

- a Regional Board decision at any time;
- emergency/critical water quality/environmental issues;
- lack of cooperation by a nonpoint source discharger;
- failure to follow through with Tier 1 or Tier 2 agreements (staff-level or Board approved agreements);
- legislative mandates;
- listing of a waterbody as impaired.

(Pursuant to section 13369(a)(2)(B) of the California Water Code, the State Board will develop, by February 1, 2001, guidance to be used by the SWRCB and RWQCBs for moving through the “three-tiered” process.)

3.4 Groundwater

A. Leaking Underground Storage Tanks (USTs) Regionwide

UST leaks contribute significantly to water quality problems within the Region. The two areas impacted most within Region 7 are the Coachella Valley (located within the priority watershed) and the City of Blythe. In both areas the underlying soil type is porous, thus allowing a significant amount of pollutants (e.g., petroleum hydrocarbons) to reach groundwater. Also, the gasoline oxygenate known as MTBE (methyl tertiary-butyl ether) has become a major problem. MTBE leaks have caused water districts within the Coachella Valley Groundwater Basin to temporarily shut down, and even abandon, drinking water wells. This is of serious concern, as the groundwater basin is the sole source of drinking water for much of the Coachella Valley.

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Section 4. Resource Allocation Summary Table for FY 01-02

PROGRAM ACTIVITIES	WATERSHED 1, SALTON SEA		WATERSHED 2, COLORADO RIVER		WATERSHED 3, HI DESERT GROUNDWATER		REGION WIDE		TOTAL	
	Existing	New	Existing	New	Existing	New	Existing	New	Existing	New
WATERSHED MANAGEMENT							1.9			
Stakeholder Support										
Integrated Plan/Chapter Update										
Program & Agency Coordination										
Watershed Management Subtotal PYs									1.9	
MONITORING							1.6			
Ambient Monitoring (e.g. Basin Plan, Mussel Watch, TSCP, CWA 305(b), CWA 303(d))										
BPTC Monitoring										
Core Regulatory (Receiving Water)										
Ground Water Monitoring										
Nonpoint Source Monitoring										
Watershed Monitoring										
Monitoring - Data Management										
Monitoring Subtotal PYs									1.6	
ASSESSMENT										
CWA Section 305(b) Water Quality Assessment								0.1		0.1
CWA Section 303(d) Waterbody Assessment								0.5		0.5
Water Quality Assessment (Other)										
BPTC Data Assessment										
Ground Water Assessment										
Nonpoint Source Assessment										
Watershed Assessment (e.g. state of the watershed reports)										
Assessment Subtotal PYs								0.6		0.6
NONPOINT SOURCE							2.5			
Program Development										
Implementation										
319(h) RFP Project Solicitation & Contract Management										
Nonpoint Source Subtotal PYs									2.5	

PROGRAM ACTIVITIES	WATERSHED 1, SALTON SEA		WATERSHED 2, COLORADO RIVER		WATERSHED 3, HI DESERT GROUNDWATER		REGION WIDE		TOTAL	
	Existing	New	Existing	New	Existing	New	Existing	New	Existing	New
PLANNING							2.1			
Basin Plan Water Quality Standards Amendments										
Basin Plan Triennial Review										
CWA Section 205 (j) RFP Project Solicitation & Review										
CWA Section 205 (j) Grant Contract Management										
Basin Plan - Other (CEQA Review)										
Planning Subtotal PYs									2.1	
WETLANDS										
Wetlands Planning										
CWA Section 401 Water Quality Certification										
Wetlands Grant Project Management										
Wetlands Subtotal PYs										
TMDL										
TMDL Development	1.7	2.5	0.3						2.0	2.5
Implementation Planning	1.1	2.5							1.1	2.5
Basin Plan Amendment										
Implementation Oversight & Tracking	0	1.5							0	1.5
TMDL Subtotal PYs	2.8	6.5	0.3						3.1	6.5
NPDES WASTEWATER							4.0			
NPDES Enforcement										
NPDES Inspections (Majors)										
NPDES Inspections (Minor)										
NPDES Monitoring Report Review										
NPDES Permitting Scheduled (Majors)										
NPDES Permitting Scheduled (Minors)										
NPDES Permitting Unscheduled (Majors)										
NPDES Permitting Unscheduled (Minors)										
NPDES Pretreatment Program										
NPDES - Other										
NPDES Program Management										
NPDES Subtotal PYs									4.0	

PROGRAM ACTIVITIES	WATERSHED 1, SALTON SEA		WATERSHED 2, COLORADO RIVER		WATERSHED 3, HI DESERT GROUNDWATER		REGION WIDE		TOTAL	
	Existing	New	Existing	New	Existing	New	Existing	New	Existing	New
NPDES STORM WATER							1.3			
NPDES Storm Water - Municipal										
NPDES Storm Water - Industrial										
NPDES Storm Water - Construction										
NPDES Storm Water - Other										
NPDES Storm Water Program Management										
NPDES Storm Water Subtotal PYs									1.3	
CHAPTER 15							9.2			
Chapter 15 Enforcement										
Chapter 15 Inspections										
Chapter 15 Monitoring Report Review										
Chapter 15 Permitting Scheduled										
Chapter 15 Permitting Unscheduled										
Chapter 15 Other										
Chapter 15 Program Management										
Chapter 15 Subtotal PYs									9.2	
NON CHAPTER 15							4.7			
Non Chapter 15 Enforcement										
Non Chapter 15 Inspections										
Non Chapter 15 Monitoring Report Review										
Non Chapter 15 Permitting Scheduled										
Non Chapter 15 Permitting Unscheduled										
Non Chapter 15 Other										
Non Chapter 15 Program Management										
Non Chapter 15 Subtotal PYs									4.7	
ABOVEGROUND TANKS										
Aboveground Tanks Subtotal PYs							0.6		0.6	
DoD										
DoD Subtotal PYs							1.1		1.1	
SLIC										
SLIC Subtotal PYs							0.8		0.8	
UNDERGROUND TANKS										
Underground Tanks Subtotal PYs							4.9		4.9	
PROGRAM MANAGEMENT										
Program Management Subtotal PYs							4.0		4.0	
MEXICALI										
New River/Mexicali Subtotal PYs	2.4								2.4	
TOTAL	5.2	6.5	0.3				38.7	0.6	44.2	7.1

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Section 4. Appendices

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Appendix A: NPDES Major Permit Reissuance Schedule

Table A- 1. NPDES Major Permit Reissuance Schedule

NPDES NO	FACILITY NAME	FY01/02	FY02/03	FY03/04	FY04/05	FY05/06	Exp Date (yy/mm/dd)
CA0104523	BRAWLEY, CITY OF					X	00/03/27
CA7000001	CA DEPT OF CORRECTIONS				X		03/05/13
CA0104418	CALEXICO, CITY OF		X				99/06/29
CA0105015	CALIPATRIA, CITY OF			X			04/06/08
CA0104426	EL CENTRO, CITY OF			X			04/03/09
CA0104965	HEBER GEOTHERMAL COMPANY					X	05/06/28
CA0104248	EL CENTRO STEAM PLANT			X			04/06/08
CA0104493	COACHELLA SANITARY DISTRICT					X	05/05/27
CA0104973	COACHELLA VALLEY WATER DIST					X	05/05/22
CA0104477	VALLEY SANITARY DISTRICT					X	05/04/12
CA7000003	SECOND IMPERIAL GEOTHERMAL					X	05/04/12
CA0104205	NEEDLES, CITY OF		X				04/01/12

Appendix B: NPDES Minor Permit Reissuance Schedule

Table B-1. NPDES Minor Permit Reissuance Schedule

NPDES NO	FACILITY NAME	FY01/02	FY02/03	FY03/04	FY04/05	FY05/06	Exp Date (yymmdd)
CA0104841	DATE GARDEN MHP		X				02/11/04
CA0104264	FORREST ENTERPRISES, INC			X			02/11/04
CA0105040	FPL ENERGY OPERATING SERV. INC	X					00/03/27
CAG917001	GROUNDWATER CLEANUP				X		
CA0104370	HEBER PUBLIC UTILITY DISTRICT					X	05/06/26
CA0104361	HOLTVILLE, CITY OF					X	05/06/26
CAG017001	GENERAL PERMIT FOR CONFINED ANIMAL FACILITIES					X	
CA0104299	IMPERIAL COMM. COLLEGE DIST				X		04/03/09
CA7000004	IMPERIAL IRRIGATION DISTRICT					X	99/06/29
CA0104949	IMPERIAL IRRIGATION DISTRICT				X		03/06/10
CA0104400	IMPERIAL, CITY OF					X	00/03/27
CA0104281	MCCABE UNION SCHOOL DISTRICT					X	05/11/27
CA0104990	NEW CHARLESTON POWER 1					X	05/03/31
CA0104451	NILAND SANITARY DISTRICT			X			03/05/13
CA0105066	PRIMARY POWER MGMT & DEVEL					X	99/01/18
CA0105023	SEELEY COUNTY WATER DISTRICT			X			02/06/24
CA0104345	SUNSET MUTUAL WATER COMP.		X				02/05/27
CA0104906	US NAVAL AIR FACILITY					X	05/11/27
CA0105007	WESTMORLAND, CITY OF				X		03/01/07
CA7000005	USDI BUREAU OF RECLAMATION					X	06/03/26

Appendix C: Stormwater Permit Reissuance Schedule

Table C- 1. Major Stormwater Permits

NPDES NO	FACILITY NAME		FY01/02	FY02/03	FY03/04	FY04/05	FY05/06	Exp Date (yymmdd)
96-015	MUNICIPAL STORMWATER PERMIT						X	

Table C- 2. NPDES Stormwater Compliance Inspections

NUMBER OF INSPECTIONS

	FY 01/02		FY 02/03		FY 03/04		FY 04/05		FY 05/06	
	Major	Minor								
Level A Stormwater	60		60		60		60		60	
Level B Stormwater										

Appendix D: Non-Chapter 15 Permit Reissuance Schedule

Table D- 1. Non-Chapter 15 Compliance Inspections

Threat to Water Quality	NUMBER OF INSPECTIONS														
	FY01/02			FY02/03			FY03/04			FY04/05			FY05/06		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
Level A	30	0	0	30	0	0	30	0	0	30	0	0	30	0	0
Level B	0	30	34	0	30	34	0	30	34	0	30	34	0	30	34

Table D- 2. Non-Chapter 15 WDR Updates/Recissions (Threat to Water Quality I)

ORDER NO	WDID NO	FACILITY NAME OR GENERAL WDR TITLE	FY01/02	FY01/02	FY02/03	FY03/04	FY 05/06	Exp Date (yymmdd)
	7A360702011	USMC 29 PALMS WWTP					X	
	7A330105071	COACHELLA VALLEY WD					X	
	7A360100011	BIG BEAR REG. WWA					X	
91-039	7A130103013	EL CENTRO-STDBY BASIN	X					01/06/23
97-005	7A330105012	PALM DESERT WRP #10					X	02/01/21
94-039	7B330102012	BLYTHE WWTP				X		04/05/14
94-039T2	7B330102012	BLYTHE WWTP				X		04/05/14

Table D- 3. Non-Chapter 15 WDR Updates/Recissions (Threat to Water Quality II)

ORDER NO	WDID NO	FACILITY NAME OR GENERAL WDR TITLE	FY01/02	FY02/03	FY03/04	FY04/05	FY 05/06	Exp Date (yymmdd)
	7B330707001	AHA QUIN PARK					X	
91-043	7A332005012	ARMTEC DEFENSE PRODUC.	X					01/09/15
93-003	7A330100015	BANNING STP-NON NPDES			X			03/01/18
90-003	7B361044011	BLACK MEADOW LANDING					X	00/01/15
90-003TI	7B361044011	BLACK MEADOW LANDING					X	00/01/15
98-04602	7B330118011	BLYTHE AIRPORT STF					X	00/09/16
90-058	7B330118011	BLYTHE AIRPORT STF	X					00/09/16
91-016	7B360704011	BOR-PARKER DAM STP	X					01/03/10
91-009	7A130102031	CALIPATRIA-EMERG. DISCH	X					01/01/13
93-016	7B330809001	CHUCKAWALLA CORR FAC			X			03/03/29
90-033	7A330104021	COACHELLA SANITARY DIST					X	00/03/11
91-017	7A132008014	COAL ASH RET BASIN	X					01/03/10
93-122	7A330131001	COOLING TWR. BLOWDOWN			X			03/11/15
90-010	7B361046011	HAVASU PALMS, INC.					X	00/01/15

ORDER NO	WDID NO	FACILITY NAME OR GENERAL WDR TITLE	FY01/02	FY02/03	FY03/04	FY04/05	FY 05/06	Exp Date (yymmdd)
90-010TI	7B361046011	HAVASU PALMS, INC.					X	00/01/15
94-002	7A132185002	IMP VALLEY RESOURCE				X		04/01/16
91-036	7A130106002	IMPERIAL STANDBY BASIN	X					01/06/23
91-037	7A330104032	INDUSTRIAL WWTP	X					01/06/23
90-013	7A361022011	MITSUBISHI CEMENT					X	00/03/11
90-013TI	7A362022011	MITSUBISHI CEMENT					X	00/03/11
90-071	7B360110013	NEEDLES-STANBY BASINS	X					00/11/25
92-021	7A130109022	NILAND SD-EMERG. DISCH.		X				02/03/09
91-042	7B331020011	NORTON FARMS	X					01/09/15
93-144	7A331171011	P.S. AERIAL TRAMWAY			X			03/11/15
93-076	7A330114012	PALM SPRINGS WWTF			X			03/11/15
90-015	7B130706001	QUECHAN-SLUDGE BASIN					X	00/03/11
90-063	7B330118001	RIPLEY WTP	X					00/09/16
90-064	7B361284011	RIVER REFLECTIONS	X					00/09/16
90-08105	7B361284011	RIVER REFLECTIONS	X					00/11/25
94-046	7B361009011	RIVER SHORE ESTATES				X		04/06/26
94-046TI	7B361009011	RIVER SHORE ESTATES				X		04/06/26
93-027	7B361267001	RIVER VIEW TRAILER PK			X			03/03/29
91-038	7A332012011	ROBERTSON'S READY MIX	X					01/11/17
91-020	7B362030031	SO NEEDLES COMP STA	X					01/03/10
94-03405	7A331006012	ST ANTHONY TRAILER PK		X				02/03/09
92-022	7A331006012	ST ANTHONY TRAILER PK		X				02/03/09
92-022TI	7A331006012	ST ANTHONY TRAILER PK		X				02/03/09
93-015	7A330118033	THERMAL AIRPORT SDB			X			03/03/29
93-017	7A132021011	U.S. GYPSUM COMPANY			X			03/05/17
93-031	7A360702021	USMC CAMP WILSON WWTP			X			03/05/17
93-026	7A332010011	VENTURA COASTAL CORP			X			03/01/24
94-014	7A330122014	VSD-PASTURE IRRIGATION				X		04/01/18
	7B331014011	WATER WHEEL RESORT					X	
91-044	7A132149001	WINGATE COMPANY	X					01/11/17
94-051	7A132028021	WM. BOLTHOUSE FARMS				X		04/06/26

Table D- 4. Non-Chapter 15 WDR Updates/Recissions (Threat to Water Quality III)

ORDER NO	WDID NO	FACILITY NAME OR GENERAL WDR TITLE	FY01/02	FY02/03	FY03/04	FY04/05	FY 05/06	Exp Date (yyymmdd)
97-500	7A370121021	AGUA CALIENTE REG PK		X				02/03/25
97-500	7A331270001	ALMAR ACRES RV PARK			X			02/03/25
97-500	7A361028011	APACHE MHP			X			02/03/25
97-500	7A361402011	AZTEC MHP		X				02/03/25
97-500	7A361004001	BEST WESTERN GARDENS		X				02/03/25
97-500	7B361049011	BIG RIVER RV PARK		X				02/03/25
97-500	7A331034011	BOB'S RV ROUNDUP		X				02/03/25
89-030	7A330105021	BOMBAY BEACH STP				X		04/05/13
97-500	7A371000021	BUTTERFIELD RANCH		X				02/03/25
97-500	7A331151011	CALIENTE SANDS MHP				X		02/03/25
97-500	7A331271001	CALIENTE SPRINGS RV		X				02/03/25
97-500	7A331301001	CAREFREE MHP			X			02/03/25
97-700	7A331327001	CASA BLANCA OWN.				X		02/06/24
97-500	7A331028001	CATALINA EXEC SPA		X				02/03/25
97-500	7A331010011	CATALINA SPA & RV		X				02/03/25
97-500	7A331037001	CHRISTN SCHOL OF DSRT			X			02/03/25
97-500	7A361040011	COPPER MTN CAMPUS		X				02/03/25
97-500	7A331011001	CORKHILL PALMS MHP		X				02/03/25
97-500	7A331035011	CORKILL PARK			X			02/03/25
97-500	7A361000001	COUNTRY CLUB MH EST.			X			02/03/25
97-500	7A331008011	COUNTRY SQUIRE MHP		X				02/03/25
97-500	7A361405011	CRESCENT ALZHEIMERS		X				02/03/25
97-500	7A361405013	CRESCENT GARDENS		X				02/03/25
97-500	7A361405012	CRESCENT NURSNG/REHAB		X				02/03/25
97-500	7A371009011	DEANZA SPRGS CMPGRD			X			02/03/25
97-700	7A331346001	DELL WEBB SUN CITY				X		02/06/24
97-700	7A338888001	DEMUTH PARK				X		02/06/24
97-500	7A331345001	DESERT HILLS MHP		X				02/03/25
97-500	7A331323001	DESERT HILLS OUTLET		X				02/03/25
97-500	7A331158011	DESERT OASIS MHP		X				02/03/25
97-500	7A331024011	DESERT POOLS RV RST			X			02/03/25
97-500	7B361345001	DESERT RIVIERA MH&RV			X			02/03/25
97-500	7A331022011	DESERT SPRINGS SPA RV		X				02/03/25
97-500	7A331150011	DESERT VIEW MHC			X			02/03/25
97-700	7A330123001	DESERT WILLOW				X		02/06/24
97-500	7B330119011	DESTINY MCINTYRE RV			X			02/03/25
97-700	7A338888006	DWA OPERATING CENTER				X		02/06/24
97-500	7B361268001	ECHO LODGE RESORT		X				02/03/25
97-500	7A361029001	EL PASEO APARTMENTS			X			02/03/25
97-500	7A371010011	EL RANCHO TRAILER			X			02/03/25
97-500	7A361050011	FAIRWAY MOB. ESTATES		X				02/03/25
97-500	7A360808001	FENNER SAFETY		X				02/03/25
97-500	7A331173011	FIESTA CATHEDRAL PALM				X		02/03/25

ORDER NO	WDID NO	FACILITY NAME OR GENERAL WDR TITLE	FY01/02	FY02/03	FY03/04	FY04/05	FY 05/06	Exp Date (yyymmdd)
89-054	7A131043011	FOUNTAIN OF YOUTH SPA				X		04/06/24
89-054TI	7A131043011	FOUNTAIN OF YOUTH SPA				X		04/06/24
97-500	7A331005001	FRED A. JOHNS MOBILE			X			02/03/25
97-500	7A361042001	FRIENDLY HILLS ELEM		X				02/03/25
97-500	7A331341001	GALINDO MIG WORKER PK			X			02/03/25
97-500	7A361401011	GATES OF SPAIN			X			02/03/25
97-500	7B360130002	GENE PUMPING PLANT		X				02/03/25
97-500	7A331020011	GOLDEN LANTERN MV			X			02/03/25
97-500	7A331314001	GOLDEN POND RESORT		X				02/03/25
97-700	7A331333001	GOLF CNTR PALM DESERT				X		02/06/24
86-065	7A332011011	GRANITE CONST. INDIO	X					01/11/15
86-064	7A332011021	GRANITE CONST. PLM SPRG	X					01/11/15
97-500	7A331015011	HEALING WATER ME		X				02/03/25
97-500	7B331015001	HIDDEN BEACHES			X			02/03/25
97-500	7A331172011	HIDDEN SPRINGS CC		X				02/03/25
97-500	7A361041022	HI-DESERT CONT CARE		X				02/03/25
94-007	7A361041021	HI-DESERT MEMORIAL				X		04/03/12
97-500	7A331030001	HOLMES HOT SPRGS MHP		X				02/03/25
97-500	7A331040001	HOT SPRING HEALTH RST		X				02/03/25
97-700	7A331333002	INDIAN RIDGE CC				X		02/06/24
97-500	7A331168011	INDIAN SPRINGS MHP			X			02/03/25
97-500	7A331278001	INDIAN WELLS RV PARK		X				02/03/25
97-500	7A331317001	JOSHUA SPRGS MHP		X				02/03/25
97-500	7A361042002	JOSHUA TREE ELEM			X			02/03/25
97-500	7A371006011	K.Q. RANCH		X				02/03/25
88-014	7A331018011	KAISER SEWAGE DISP PD				X		03/01/23
97-500	7A361042010	LA CONTENTA JR. HIGH		X				02/03/25
97-500	7A331032011	LA QUINTA RIDGE MHP		X				02/03/25
97-500	7A331041011	LANPENA FARM LBR MHP		X				02/03/25
97-500	7A131182011	LARK SPA MHP		X				02/03/25
97-500	7A361033001	LAZY "H" MHP		X				02/03/25
97-500	7A361330003	LUCERNE VALLEY ELEM.			X			02/03/25
97-500	7A361330001	LUCERNE VALLEY HS			X			02/03/25
97-500	7A331187011	MAGIC WATERS MHP		X				02/03/25
97-700	7A331328001	MARRIOTT DESERT SPG				X		02/06/24
97-500	7B331030011	MESA BLUFF VILLAGE		X				02/03/25
97-700	7A338888002	MESQUITE GOLF COURSE				X		02/06/24
97-500	7A331012001	MIRACLE ACRES RV			X			02/03/25
97-500	7A331017011	MISSION LAKES CC COND		X				02/03/25
97-500	7A362022021	MITSUBISHI CEMENT			X			02/03/25
97-500	7A361042003	MORONGO VALLEY ELEM			X			02/03/25
97-500	7A361034011	MOTEL 6		X				02/03/25
97-700	7A338888003	MOUNTAIN VIEW FALLS				X		02/06/24

ORDER NO	WDID NO	FACILITY NAME OR GENERAL WDR TITLE	FY01/02	FY02/03	FY03/04	FY04/05	FY 05/06	Exp Date (yyymmdd)
97-500	7A331025001	MOUNTAIN VIEW MHP		X				02/03/25
97-500	7A361405014	MOYLE'S HI-DESERT		X				02/03/25
86-068	7A131256001	MT. SIGNAL CAFÉ	X					01/11/15
97-500	7A361041001	MWD IRON MTN PUMP PLT		X				02/03/25
89-028	7A330105032	NORTH SHORE WRP				X		04/05/13
97-500	7B361007001	NORTHSHORE RV RESORT			X			02/03/25
97-500	7A361042004	OASIS ELEMENTARY		X				02/03/25
97-500	7A361042005	ONAGA ELEMENTARY		X				02/03/25
97-700	7A331297001	PALM DESERT GREENS				X		02/06/24
97-700	7A331342001	PALM DESERT HS				X		02/06/24
97-500	7A331036011	PALM DRIVE MOB. ESTATES		X				02/03/25
97-500	7A331344001	PALM SPRINGS OASIS RV			X			02/03/25
97-500	7A361042006	PALM VISTA ELEM			X			02/03/25
97-500	7A331023001	PARK WEST MHP		X				02/03/25
85-090	7A332016011	PETER RABBIT FARMS	X					00/09/28
85-090TI	7A332016011	PETER RABBIT FARMS				X		02/07/09
97-500	7B131304001	PILOT KNOB RV RSRT			X			02/03/25
97-700	7A331311001	PORTOLA COUNTRY CLUB				X		02/06/24
97-500	7A361288001	QUAIL SPRGS VILLAGE		X				02/03/25
97-500	7A331280001	QUAIL VALLEY RV PARK		X				02/03/25
97-500	7B361029011	RAINBO BEACH RESORT		X				02/03/25
97-500	7A331276001	RAINBOW SPA		X				02/03/25
86-067	7A131251001	RAMON C. SERNA SEW FAC	X					01/11/15
89-03303	7A131251001	RAMON C. SERNA SEW. FAC.				X		04/03/18
97-500	7A131290001	RIO BEND RV PARK		X				02/03/25
97-500	7B361006001	RIO DEL COLORADO		X				02/03/25
97-500	7B361008001	RIO DEL SOL RV HAVEN		X				02/03/25
97-500	7B361002001	RIVER LAND RESORT		X				02/03/25
97-500	7B361281001	RIVER LODGE RESORT			X			02/03/25
97-500	7A371005011	ROADRUNNER CLUB			X			02/03/25
97-500	7A361001001	ROYAL CREST MHP		X				02/03/25
97-500	7A331343001	ROYAL PALMS MHP			X			02/03/25
89-049	7A131002011	SALAS, PRUNDENCIO ALVAREZ				X		04/06/24
97-500	7A131015011	SALTON SEA BCH MARINA			X			02/03/25
88-134	7A330803021	SALTON SEA REC-HDQS CMPG				X		03/11/27
88-136	7A330803011	SALTON SEA REC-MECCA BCH				X		03/11/27
97-500	7A331174011	SAMS FAMILY SPA			X			02/03/25
97-500	7B131006011	SAN PASQUAL USD		X				02/03/25
97-700	7A331296001	SANTA ROSA CC				X		02/06/24
97-500	7A331273001	SANTIAGO SUN CANYON		X				02/03/25
97-500	7B130705012	SENATOR WASH REC AREA		X				02/03/25
97-700	7A338888004	SILVER SANDS RACQUET				X		02/06/24

ORDER NO	WDID NO	FACILITY NAME OR GENERAL WDR TITLE	FY01/02	FY02/03	FY03/04	FY04/05	FY 05/06	Exp Date (yyymmdd)
97-500	7A331022001	SKY RIDGE PARK			X			02/03/25
97-500	7A331245001	SKY VALLEY PARKS		X				02/03/25
97-500	7A331026001	SPARKLING WATER MHP			X			02/03/25
97-500	7A361283001	SPECIALTY MINERALS		X				02/03/25
97-500	7A330133001	ST. JOHNS SCHOOL-BOYS			X			02/03/25
97-500	7A371303001	STAGECOACH TRAIL RV		X				02/03/25
97-500	7A331029001	SUNBIRD MHP			X			02/03/25
97-500	7A361003001	SUNNYSLOPE APTS		X				02/03/25
97-500	7B361003001	SUNSHINE RESORT		X				02/03/25
97-500	7A361002001	SUNWEST VILLAS		X				02/03/25
97-700	7A338888005	TAHQUITZ CREEK GOLF				X		02/06/24
97-500	7A331175011	TAMARISK MH & RV PARK		X				02/03/25
97-500	7A331172013	THE SANDS RV		X				02/03/25
97-500	7A331183011	TRAMVIEW MHP		X				02/03/25
97-500	7A361329001	TWENTYNINE PALMS RVP		X				02/03/25
97-500	7A361042007	TWENTYNINE PLMS ELEM			X			02/03/25
97-500	7A361042012	TWENTYNINE PLMS HIGH			X			02/03/25
97-500	7A361042011	TWENTYNINE PLMS JR.		X				02/03/25
97-500	7A331274001	TWO SPRINGS RESORT		X				02/03/25
97-500	7A361212001	VALLEY VIEW MHP		X				02/03/25
97-700	7A331324001	VISTA DEL MONTANAS				X		02/06/24
97-500	7A361030001	VISTA DEL SOL I		X				02/03/25
97-500	7A361031001	VISTA DEL SOL II			X			02/03/25
97-500	7A331316001	VISTA GRANDE SPA			X			02/03/25
97-500	7A331179011	WAGNER MHP		X				02/03/25
97-500	7B361024011	WHEEL-ER FAM. RST.		X				02/03/25
97-500	7B361005001	WINDMILL RESORT			X			02/03/25
97-500	7A361042008	YUCCA MESA CHARTER		X				02/03/25
97-500	7A361042009	YUCCA VALLEY ELEM		X				02/03/25
97-500	7A361042013	YUCCA VALLEY HIGH		X				02/03/25
97-500	7A361035011	YUCCA VALLEY MH PARK		X				02/03/25

Appendix E: NPDES Compliance Inspections

Table E- 1. NPDES Compliance Inspections

	NUMBER OF INSPECTIONS									
	FY01/02		FY02/03		FY03/04		FY04/05		FY05/06	
	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor
Level A NPDES	12	22	12	22	12	22	12	22	12	22
Level B NPDES	12	44	12	44	12	44	12	44	12	44

Table E- 2. Stormwater NPDES Compliance Inspections

Appendix F: NPDES Pretreatment Audit Schedule

There are no pretreatment programs in the Colorado River Basin Region.

Appendix G: Chapter 15 Permit Reissuance Schedule

Table G- 1. Chapter 15 WDR Updates/Recissions (Threat to Water Quality I)

ORDER NO	WDID NO	FACILITY NAME OR GENERAL WDR TITLE	FY01/02	FY02/03	FY03/04	FY04/05	FY 05/06	Exp Date (yyymmdd)
94-081	7A132236001	SALTON SEA III	X					99/09/12
94-084	7A132050004	SALTON SEA UNIT III	X					99/09/12
94-082	7A132050021	SALTON SEA UNITS I & II	X					99/09/12
94-083	7A132040014	VULCAN POWER PLANT	X					99/09/12
00-046	7A360311011	USMC-AGCC 29 PALMS WMF					X	05/06/28
95-100	7A132233001	MESQUITE REG. LNDFL					X	05/11/27
96-046	7A360304281	BIG BEAR CLS III WMF		X				01/11/12
97-007	7A130301011	BRAWLEY CLS III WMF		X				02/01/21
97-008	7A130301021	CALEXICO CLS III WMF		X				02/01/21
97-010	7A130301051	IMP CLASS III WMF		X				02/01/21
97-003	7A360304161	MORONGO WMF		X				02/01/21
97-018	7A130301031	HOLTVILLE CLS III WMF		X				02/03/25
97-073	7A130300013	REPUBLIC IMP LANDFILL						02/06/24
97-043	7A330305131	MECCA II CLS III WMF						02/06/24
97-050	7B360304171	NEEDLES WMF						02/06/24
97-043TI	7A330305131	MECCA II CLS III WMF						02/06/24
98-003	7A360304121	LANDERS CLASS III WMF						03/01/07
98-024	7A132197001	DESERT VLY MONOFILL		X				03/05/13
98-049	7A330305041	EDOM HILL CLS III WMF						03/05/13
98-049TI	7A330305041	EDOM HILL CLS III WMF						03/05/13
98-082	7A130300011	REPUBLIC IMP LANDFILL						03/11/11
94-005	7A130315003	SAFETY KLEEN						04/01/17
99-00808	7A130315003	SAFETY KLEEN						04/01/17
99-00801	7A132236001	SALTON SEA III						04/03/09
95-079	7A360702031	USMC FIRE FIGHTING TRAINING CENTER						
91-029	7A130301031	UCD HOLTVILLE (AG EXTENSION)						
97-045	7A130301111	SALTON CITY LANDFILL						
		BLYTHE LANDFILL						
		CA BIOMASS						

Table G- 2. Chapter 15 WDR Updates/Revisions (Threat to Water Quality II)

ORDER NO	WDID NO	FACILITY NAME OR GENERAL WDR TITLE	FY01/02	FY02/03	FY03/04	FY04/05	FY 05/06	Exp Date (yyymmdd)
00-090	7A132035301	ORMESA GEOTH II PROJECT						10/06/28
00-085	7A132035401	ORMESA GEOTH – AMOR 12						10/06/28
00-044	7A132160002	HEBER GEO – EVAP BASIN						10/05/10
00-102	7A132035404	PEM UNIT II PROJECT						10/09/13
00-103	7A132035403	ORMESA GEOTH I PROJECT						10/09/13
00-024	7A360304231	TWENTYNINE PALMS WMF						10/06/28
90-044	7A132006002	MAGMA POWER TRUCKHAVEN	X					00/06/24
00-009	7A360307011	MITSUBISHI CEMENT WMF						10/04/12
99-015	7A362179002	CASTLE MTN. PROJECT						09/06/10
91-051	7A132138005	DEL RANCH POWER PLANT	X					01/11/17
91-054	7A132138004	VULCAN/BN GEOTHERMAL	X					01/11/17
91-053	7A132040019	JM LEATHERS PWR PLANT	X					01/11/17
91-052	7A132040017	JJ ELMORE POWER PLANT	X					01/11/17
92-009	7B132141006	PICACHO MINE – SITE 5						02/01/19
92-031	7A132040015	DEL RANCH GEO HLDG BSN	X					02/05/11
92-030	7A132159001	HEBER BIN PWR PLT-WELLS						02/05/11
92-029	7A132002051	HEBER PRO & INJEC WELLS						02/05/11
00-052	7A330305101	OASIS CLASS III WMF						10/05/10
98-002	7A330305121	DESERT CENTER SANITARY						03/09/13
89-005	7A132050000	UNOCAL-RESIDUE PROC						99/01/23
89-019	7A332009011	CLOSURE TAIL BSNS 4,5,6						99/03/20
90-039	7A330301011	GRANITE CONST. INDIO						00/05/13
95-016	7A132140003	MESQUITE MINE						05/03/26
95-079	7A360702031	USMC FIRE FGT TRN FAC						05/09/24
97-025	7B130301091	PALO VERDE III WMF						07/05/26
97-046	7A130301071	NILAND III WMF						07/05/26
98-050	7B362186001	TOPOCK COMPRESSOR STA.						08/05/11
00-005	7A370303021	BORREGO SPRINGS SWDS						10/04/12
00-115	7B332022011	SCGC-BLYTHE COMPRSSR						10/11/08
89-010	7A360304141	LUCERNE VALLEY WMF						99/01/23
00-101	7A132040013	EAST MESA UNITS 5&6						10/09/13

Table G- 3. Chapter 15 WDR Updates/Recissions (Threat to Water Quality III)

ORDER NO	WDID NO	FACILITY NAME OR GENERAL WDR TITLE	FY01/02	FY02/03	FY03/04	FY04/05	FY 05/06	Exp Date (yymmdd)
85-016	7B360309011	HAVASU PALMS - SWDS						00/01/20
90-075	7A360310002	SPECIALTY MINERALS						05/11/24
93-043	7A132222001	SANTE FE PACIFIC MIN						08/11/13
96-001	7A130303011	US GYPSUM CLASS III WMF						11/01/20
97-022	7A130301041	HOT SPA WMF						12/03/22
97-044	7A130301081	OCOTILLO WMF						12/05/24
97-045	7A130301111	SALTON CITY WMF						12/05/24
98-095	7A132168002	AMERICAN GIRL MINE						13/11/08
99-010	7A130310011	MAGAZINE RD LANDFILL						14/03/07
00-004	7A330307001	CALIFORNIA BIOMASS						15/04/12
00-045	7A330308001	COACHELLA LF COMPOSTING						15/05/10
00-140	7A362183003	OMYA						15/11/08
98-007	7A360312011	IRON MTN PUMPING PT WMF						13/03/08
96-019	7A339999002	SALADO CREEK ENTRPRISES,LLC						01/05/21
88-005	7B130301101	PICACHO SWDS	X					03/01/23

Table G- 4. Chapter 15 WDR Compliance Inspections

		NUMBER OF INSPECTIONS														
		FY01/02			FY02/03			FY03/04			FY04/05			FY05/06		
Threat to Water Quality		I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
Level A																
Level B		75	120	8	75	120	8	75	120	8	75	120	8	75	120	8

Appendix H: TMDL Tables

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Table H- 1. Summary Schedule for TMDL Development⁷

Waterbody	Hydrologic Unit #	Size Affected	Problem Description	Specific Pollutants	Probable Source	TMDL Priority	Target Dates
Alamo River	723.10	52 miles	Elevated fish tissue levels (pesticides and selenium), toxic bioassay results (pesticides), recreational impacts	Pesticides, selenium, silt	Agricultural return flows ³	high	<i>Sediment</i> : Start 1998, complete 2001 <i>Selenium</i> : Start 2000, complete 2010 <i>Pesticide</i> : Start 2002, complete 2011
Coachella Valley Stormwater Channel	719.47	20 miles	Bacteria objective violated, threat of toxic bioassay results	Bacteria	Unknown	Low	<i>Bacteria</i> : Start 2004, complete 2009
Imperial Valley Drains	723.10	1,305 miles	Elevated fish tissue levels (pesticides and selenium), toxic bioassay results (pesticides), recreational impacts	Pesticides, selenium, silt	Agricultural return flows ³	high	<i>Sediment</i> : Start 1998, complete 2001 <i>Selenium</i> : Start 2000, complete 2010 <i>Pesticide</i> : Start 2005, complete 2011
New River	723.10	60 miles	Public health hazard, objectives violated, fish kills	Pesticides, silt, bacteria, nutrients, VOCs	Agricultural return flows and Mexico	high	<i>Sediment</i> : Start 1998, complete 2002 <i>Bacteria</i> : Start 1998, complete 2005 ⁸ <i>Nutrients</i> : Start 2002, complete 2010 <i>Pesticides</i> : Start 2002, complete 2013 <i>VOCs</i> : Start 2007, complete 2013
Palo Verde Outfall Drain	715.40	16 miles	Bacteria objective violated, threat of toxic bioassay results, threat of sedimentation	Bacteria	Unknown	medium	<i>Bacteria</i> : Start 2005, complete 2011
Salton Sea	728.00	220,000 acres	Salinity objectives violated, elevated fish tissue levels (selenium), recreational impacts	Selenium, salt, nutrients	Agricultural return flows ⁹	medium	<i>Salt</i> : Start 1998, complete 2002 <i>Selenium</i> : Start 2002, complete 2007 <i>Nutrients</i> : Start 2002, complete 2010

⁷ This is not a commitment to complete work. The commitments are made in fund source specific workplans.

⁸ Regional Board proposes to establish TMDL in cooperation with US EPA/Mexico.

⁹ Selenium originates from upper portion of the Colorado River and is delivered to the Imperial Valley via irrigation water.

Table H- 2. Detailed Schedules of TMDL Activities (next 5 Years)

Alamo River: Sediment/Silt

Waterbody Name/Reach	Alamo River	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	723.10	
Stressor	Sediment/silt	
Activity Dates	Start	End
TMDL Development	1998	2001
Implementation Planning	1998	2001
Basin Plan Amendment	1999	2001
Implementation Oversight & Tracking	2001	2011 (and perhaps beyond)

New River: Pathogen

Waterbody Name/Reach	New River	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	723.10	
Stressor	Bacteria	
Activity Dates	Start	End
TMDL Development	1998	2001
Implementation Planning	1998	2001
Basin Plan Amendment	1999	2001
Implementation Oversight & Tracking	2001	2011 (and perhaps beyond)

New River: Sediment/Silt

Waterbody Name/Reach	New River	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	723.10	
Stressor	Silt	
Activity Dates	Start	End
TMDL Development	1999	2001
Implementation Planning	1999	2001
Basin Plan Amendment	1999	2001
Implementation Oversight & Tracking	2001	2010 (and perhaps beyond)

Alamo River: Selenium

Waterbody Name/Reach	Alamo River	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	723.10	
Stressor	Selenium	
Activity Dates	Start	End
TMDL Development	2002	2003
Implementation Planning	2002	2005
Basin Plan Amendment	2004	2005
Implementation Oversight & Tracking	2005	2022

Salton Sea: Nutrients

Waterbody Name/Reach	Salton Sea	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	728.00	
Stressor	Nutrients	
Activity Dates	Start	End
TMDL Development	2000	2003
Implementation Planning	2002	2003
Basin Plan Amendment	2002	2003
Implementation Oversight & Tracking	2003	2018 (and perhaps beyond)

New River: Nutrients

Waterbody Name/Reach	New River	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	723.10	
Stressor	Nutrients	
Activity Dates	Start	End
TMDL Development	2003	2005
Implementation Planning	2005	2006
Basin Plan Amendment	2005	2006
Implementation Oversight & Tracking	2006	2021 (and perhaps beyond)

Salton Sea: Selenium

Waterbody Name/Reach	Salton Sea	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	728.00	
Stressor	Selenium	
Activity Dates	Start	End
TMDL Development	2000	2003
Implementation Planning	2000	2003
Basin Plan Amendment	2000	2003
Implementation Oversight & Tracking	2003	2019

Imperial Valley Agricultural Drains: Sediment/Silt

Waterbody Name/Reach	Imperial Valley Agricultural Drains	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	723.10	
Stressor	Sediment/Silt	
Activity Dates	Start	End
TMDL Development	2001	2003
Implementation Planning	2001	2003
Basin Plan Amendment	2001	2003
Implementation Oversight & Tracking	2003	2011

New River: Volatile Organic Constituents

Waterbody Name/Reach	New River	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	723.10	
Stressor	Volatile Organic Constituents VOCs	
Activity Dates	Start	End
TMDL Development	2004	2006
Implementation Planning	2004	2006
Basin Plan Amendment	2004	2006
Implementation Oversight & Tracking	2006	2014

Alamo River: Pesticides

Waterbody Name/Reach	Alamo River	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	723.10	
Stressor	Pesticides	
Activity Dates	Start	End
TMDL Development	2002	2011
Implementation Planning	2002	2011
Basin Plan Amendment	2003	2011
Implementation Oversight & Tracking	2011	2015

New River: Pesticides

Waterbody Name/Reach	New River	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	723.10	
Stressor	Pesticides	
Activity Dates	Start	End
TMDL Development	2003	2006
Implementation Planning	2003	2006
Basin Plan Amendment	2004	2006
Implementation Oversight & Tracking	2006	2010

Imperial Valley Agricultural Drains: Selenium

Waterbody Name/Reach	Imperial Valley Agricultural Drains	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	723.10	
Stressor	Selenium	
Activity Dates	Start	End
TMDL Development	2002	2003
Implementation Planning	2002	2003
Basin Plan Amendment	2002	2003
Implementation Oversight & Tracking	2003	2015

Imperial Valley Agricultural Drains: Pesticides

Waterbody Name/Reach	Imperial Valley Agricultural Drains	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	723.10	
Stressor	Pesticides	
Activity Dates	Start	End
TMDL Development	2003	2006
Implementation Planning	2003	2006
Basin Plan Amendment	2003	2006
Implementation Oversight & Tracking	2006	2016

Palo Verde Outfall Drain: Bacteria

Waterbody Name/Reach	Palo Verde Outfall Drain	
Watershed Name	Lower Colorado River WMA	
Hydrologic Unit	715.40	
Stressor	Bacteria	
Activity Dates	Start	End
TMDL Development	2001	2005
Implementation Planning	2001	2005
Basin Plan Amendment	2001	2005
Implementation Oversight & Tracking	2005	2010

Coachella Valley Stormwater Channel: Bacteria

Waterbody Name/Reach	Coachella Valley Stormwater Channel	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	719.47	
Stressor	Bacteria	
Activity Dates	Start	End
TMDL Development	2004	2006
Implementation Planning	2004	2006
Basin Plan Amendment	2004	2006
Implementation Oversight & Tracking	2006	2011

Salton Sea: Salt

Waterbody Name/Reach	Salton Sea	
Watershed Name	Salton Sea Transboundary WMA	
Hydrologic Unit	728.00	
Stressor	Salt (TDS)	
Activity Dates	Start	End
TMDL Development	A TMDL for salt will address the salt impairment of the Salton Sea. It is our position that restoration of the Salton Sea with respect to salt will require and engineered solution.	
Implementation Planning		
Basin Plan Amendment		
Implementation Oversight & Tracking		

Table H-3a Alamo River Sediment

Tasks	Staff Resources				Products	Completion Dates
	State Existing	New	Fed.	Contracts		
TMDL Development						
FY 2001/02						
Problem Statement						
Source Analysis						
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement						
Numeric Target						
Allocations						
TMDL Report						
FY 2003/04						
Problem Statement						
Numeric Target						
Allocations						
TMDL Report						
Implementation Planning						
FY 2001/02						
Implementation Planning	0.3					
Monitoring	0.2	0.3		100,000	Monthly monitoring, field rpt,	Jun-02
FY 2002/03					year end summary rpt avail.	
Implementation Planning					to public	
Monitoring	0.2			100,000	"	Jun-03
FY 2003/04						
Implementation Planning						
Monitoring	0.2			100,000	"	Jun-04
Basin Plan Amendment						
FY 2001/02						
FY 2002/03	0.2				Triennial Review of TMDL	Jun-03
FY 2003/04						
Implementation						
FY 2001/02		0.5	0.3		1) Coordination and tracking of	Quarterly rpts
FY 2002/03		0.5	0.3		Farm Bureau and IID	"
FY 2003/04		0.5	0.3		implementation progress	"
					2) Support of adaptive mgmt committee	
Total						
FY 2001/02	0.5	0.8	0.3	\$100,000		
FY 2002/03	0.4	0.5	0.3	\$100,000		
FY 2003/04	0.2	0.5	0.3	\$100,000		

Table H-3b New River Bacteria						
Tasks	Staff Resources		Fed.	Contracts	Products	Completion Dates
	State Existing	New				
TMDL Development						
FY 2001/02						
Problem Statement						
Source Analysis						
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement						
Numeric Target						
Allocations						
TMDL Report						
FY 2003/04						
Problem Statement						
Numeric Target						
Allocations						
TMDL Report						
Implementation Planning						
FY 2001/02						
Implementation Planning	0.1				Coordination with NPDES program to address point source facilities in the region	Jun-02
Monitoring						
FY 2002/03						
Implementation Planning	0.1				"	Jun-03
Monitoring						
FY 2003/04						
Implementation Planning		0.1			"	Jun-04
Monitoring						
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Implementation						
FY 2001/02	0.1				Modified NPDES permits if needed	Jun-02
FY 2002/03		0.1			""	Jun-03
FY 2003/04	0.1				""	Jun 04
Total						
FY 2001/02	0.2	0		\$0		
FY 2002/03	0.1	0.1		\$0		
FY 2003/04	0.1	0.1		\$0		
** A majority of the funds for implementation of this TMDL will be requested through the New River/Mexicali Sanitation Project						

Table H-3c New River Sediment TMDL						
Tasks	Staff Resources		Fed.	Contracts	Products	Completion Dates
	State Existing	New				
TMDL Development						
FY 2001/02						
Problem Statement						
Source Analysis	0.2					
Allocations						
TMDL Report	0.2					
FY 2002/03						
Problem Statement						
Numeric Target						
Allocations						
TMDL Report						
FY 2003/04						
Problem Statement						
Numeric Target						
Allocations						
TMDL Report						
Implementation Planning						
FY 2001/02						
Implementation Planning	0.2	0.2				
Monitoring	0.2	0.2		100,000	Monthly monitoring, field rpt, year end summary rpt avail. to public	Jun-02
FY 2002/03						
Implementation Planning						
Monitoring	0.2			100,000	"	Jun-03
FY 2003/04						
Implementation Planning						
Monitoring	0.2			100,000	"	Jun-04
Basin Plan Amendment						
FY 2001/02						
FY 2002/03	0.2				Triennial Review of TMDL	Jun-03
FY 2003/04						
Implementation						
FY 2001/02		0.6	0.2		1) Coordination and tracking of Farm Bureau and IID	Quarterly rpts
FY 2002/03		0.5	0.3		implementation progress	"
FY 2003/04		0.5	0.3		2) Support of adaptive mgmt committee	"
Total						
FY 2001/02	0.8	1.0	0.2	\$100,000		
FY 2002/03	0.4	0.5	0.3	\$100,000		
FY 2003/04	0.2	0.5	0.3	\$100,000		

** Monitoring and Tracking activities for the New River Sediment TMDL will be coordinated with the activities for the Alamo River Sediment TMDL

Table H-3d Alamo River Selenium						
Tasks	Staff Resources			Contracts	Products	Completion Dates
	State Existing	New	Fed.			
TMDL Development						
FY 2001/02						
Problem Statement	0.1		0.2		Problem Stmt Report	Jun 02
Source Analysis	0.2		0.2	40,000	Lab contract	Jun 02
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement						
Source Analysis	0.1		0.1		Source Analysis Report	Jun 03
Allocations	0.1	0.1	0.1		Allocation Report	Jun 03
TMDL Report	0.2	0.1			TMDL Report	Jun 03
FY 2003/04						
Problem Statement						
Numeric Target						
Allocations						
TMDL Report						
Implementation Planning						
FY 2001/02						
Implementation Planning						
Monitoring	0.2			40,000	Field activities and lab services	Jun-02
FY 2002/03						
Implementation Planning	0.2				Stakeholder groups, research on selenium control technologies, development of timelines and milestones; year end rpt	Jun-03
Monitoring		0.2		40,000	Field activities and lab services	Jun-03
FY 2003/04						
Implementation Planning	0.2	0.2			Stakeholder groups, research on selenium control technologies, development of timelines and milestones; year end rpt	Jun-04
Monitoring	0.2	0.2		40,000	Field Activities and lab services	Jun 04
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Implementation						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Total						
FY 2001/02	0.5		0.4	\$80,000		
FY 2002/03	0.6	0.4	0.2	\$40,000		
FY 2003/04	0.4	0.4	0	\$40,000		

Table H-3e Salton Sea Nutrients						
Tasks	Staff Resources		Fed.	Contracts	Products	Completion Dates
	State Existing	New				
TMDL Development						
FY 2001/02						
Problem Statement	0.4					
Source Analysis	0.6		0.3	\$80,000	Lab services; year-end rpt	Jun-02
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement						
Numeric Target						
Allocations		0.5	0.2		Allocation Report	Jun 03
TMDL Report		0.2			TMDL Report	Jun 03
FY 2003/04						
Problem Statement						
Numeric Target						
Allocations						
TMDL Report						
Implementation Planning						
FY 2001/02						
Implementation Planning	0.4	0.4			Stakeholder groups, research on nutrient control technologies, development of timelines and milestones; year end rpt	Jun-02
Monitoring			0.3		Field monitoring activities	Jun-02
FY 2002/03						
Implementation Planning	0.2	0.8			Stakeholder groups, research on nutrient control technologies, development of timelines and milestones; year end rpt	Jun-03
Monitoring	0.2			80,000	Field monitoring activities; and lab service contract	Jun-03
FY 2003/04						
Implementation Planning			0.2			
Monitoring	0.2			80,000	Field monitoring activities, lab contract	Jun 04
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
		0.2			Preparation of BP Amendment and CEQA docs	Jun 02
FY 2003/04						
Implementation						
FY 2001/02						
FY 2002/03	0.5				Implementation tracking and oversight; year end rpt	Jun-03
FY 2003/04	1.0				Implementation tracking and oversight; year end rpt	Jun-04
Total						
FY 2001/02	1.4	0.4	0.6	\$80,000		
FY 2002/03	0.9	1.7	0.2	\$80,000		
FY 2003/04	1.2	0	0.2	\$80,000		

Table H-3f New River Nutrients						
Tasks	Staff Resources			Contracts	Products	Completion Dates
	State Existing	New	Fed.			
TMDL Development						
FY 2001/02						
Problem Statement						
Source Analysis						
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement	0.2				Problem Statement Report	Jun 03
Source Analysis	0.2	0.1				
Allocations						
TMDL Report						
FY 2003/04						
Problem Statement						
Source Analysis	0.2				Source Analysis Report	Jun 04
Allocations	0.2					
TMDL Report			0.3			
Implementation Planning						
FY 2001/02						
Implementation Planning						
Monitoring						
FY 2002/03						
Implementation Planning						
Monitoring						
FY 2003/04						
Implementation Planning						
Monitoring						
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Implementation						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Total						
FY 2001/02		0	0	\$0		
FY 2002/03	0.4	0.1		\$0		
FY 2003/04	0.4		0.3			

Table H-3g Salton Sea Selenium						
Tasks	Staff Resources			Contracts	Products	Completion Dates
	State Existing	New	Fed.			
TMDL Development						
FY 2001/02						
Problem Statement	0.3					Jun 02
Source Analysis	0.2					
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement						
Source Analysis	0.3			40,000	Source analysis report	Jun 03
Allocations	0.2				Allocation Report	Jun 03
TMDL Report	0.2					
FY 2003/04						
Problem Statement						
Numeric Target						
Allocations						
TMDL Report	0.2				TMDL Report	Jun 04
Implementation Planning						
FY 2001/02						
Implementation Planning		0.1	0.1			
Monitoring			0.2	40,000		
FY 2002/03						
Implementation Planning		0.1	0.1			
Monitoring			0.2	40,000		
FY 2003/04						
Implementation Planning						
Monitoring						
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Implementation						
FY 2001/02						
FY 2002/03		0.1	0.1		Implementation and oversight, year end report	Jun 03
FY 2003/04	0.3				""	Jun 04
Total						
FY 2001/02	0.5	0.1	0.3	\$40,000		
FY 2002/03	0.7	0.3	0.3	\$80,000		
FY 2003/04	0.5	0	0	\$0		

Table H-3h Imperial Valley Ag. Drains: Sediment/Silt						
Tasks	Staff Resources			Contracts	Products	Completion Dates
	State Existing	New	Fed.			
TMDL Development						
FY 2001/02						
Problem Statement	0.1				Problem Statement Report	Jun 02
Source Analysis	0.2					
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement						
Source Analysis	0.2				Source analysis report	Jun 03
Allocations	0.2				Allocation Report	Jun 03
TMDL Report						
FY 2003/04						
Problem Statement						
Numeric Target						
Allocations						
TMDL Report	0.2				TMDL Report	Jun 04
Implementation Planning						
FY 2001/02						
Implementation Planning		0.1	0.1			
Monitoring			0.2	40,000		
FY 2002/03						
Implementation Planning		0.1	0.1			
Monitoring			0.2	40,000		
FY 2003/04						
Implementation Planning						
Monitoring						
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Implementation						
FY 2001/02						
FY 2002/03						
FY 2003/04	0	0.2		40,000	Implementation and oversight, year-end report	Jun 04
Total						
FY 2001/02	0.3	0.1	0.3	\$40,000		
FY 2002/03	0.4	0.1	0.3	\$40,000		
FY 2003/04	0.2	0.2	0	\$40,000		

Table H-3i New River: Volatile Organic Compounds						
Tasks	Staff Resources			Contracts	Products	Completion Dates
	State Existing	New	Fed.			
TMDL Development						
FY 2001/02						
Problem Statement						
Source Analysis						
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement						
Numeric Target						
Allocations						
TMDL Report						
FY 2003/04						
Problem Statement	0.2				Problem Statement	Jun 04
Numeric Target						
Allocations						
TMDL Report						
Implementation Planning						
FY 2001/02						
Implementation Planning						
Monitoring						
FY 2002/03						
Implementation Planning						
Monitoring						
FY 2003/04						
Implementation Planning						
Monitoring						
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Implementation						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Total						
FY 2001/02						
FY 2002/03						
FY 2003/04	0.2					

Table H-3j Alamo River: Pesticides						
Tasks	Staff Resources			Contracts	Products	Completion Dates
	State Existing	New	Fed.			
TMDL Development						
FY 2001/02						
Problem Statement	0.1					
Source Analysis						
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement	0.1				Problem Statement Report	Jun 03
Numeric Target						
Allocations						
TMDL Report						
FY 2003/04						
Problem Statement						
Source Analysis	0.1					
Allocations						
TMDL Report						
Implementation Planning						
FY 2001/02						
Implementation Planning						
Monitoring						
FY 2002/03						
Implementation Planning						
Monitoring						
FY 2003/04						
Implementation Planning						
Monitoring						
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Implementation						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Total						
FY 2001/02	0.1					
FY 2002/03	0.1					
FY 2003/04	0.1					

Table H-3k New River: Pesticides						
Tasks	Staff Resources			Contracts	Products	Completion Dates
	State Existing	New	Fed.			
TMDL Development						
FY 2001/02						
Problem Statement						
Source Analysis						
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement	0.1					
Numeric Target						
Allocations						
TMDL Report						
FY 2003/04						
Problem Statement	0.1				Problem Statement Report	Jun 04
Source Analysis	0.2					
Allocations						
TMDL Report						
Implementation Planning						
FY 2001/02						
Implementation Planning						
Monitoring						
FY 2002/03						
Implementation Planning						
Monitoring						
FY 2003/04						
Implementation Planning			0.2			
Monitoring	0.2			40,000		
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Implementation						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Total						
FY 2001/02						
FY 2002/03	0.1					
FY 2003/04	0.5		0.2	\$40,000		

Table H-3I Imperial Valley Ag. Drains: Selenium						
Tasks	Staff Resources		Fed.	Contracts	Products	Completion Dates
	State Existing	New				
TMDL Development						
FY 2001/02						
Problem Statement	0.1				Problem Statement Report	Jun 02
Source Analysis	0.2					
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement						
Source Analysis	0.2				Source Analysis Report	Jun 03
Allocations						
TMDL Report						
FY 2003/04						
Problem Statement						
Numeric Target						
Allocations	0.1				Allocation Report	Jun 04
TMDL Report	0.2				TMDL Report	Jun 04
Implementation Planning						
FY 2001/02						
Implementation Planning						
Monitoring						
FY 2002/03						
Implementation Planning			0.2			
Monitoring	0.2			20,000	Field Activities and lab contract	Jun 03
FY 2003/04						
Implementation Planning			0.2			
Monitoring	0.2			20,000	Field Activities and lab contract	Jun 04
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Implementation						
FY 2001/02						
FY 2002/03						
FY 2003/04			0.2		Implementation Tracking and correspondence	
Total						
FY 2001/02	0.3		0			
FY 2002/03	0.4		0.2	\$20,000		
FY 2003/04	0.5		0.4	\$20,000		

Table H-3m Imperial Valley Ag. Drains: Pesticides						
Tasks	Staff Resources			Contracts	Products	Completion Dates
	State Existing	New	Fed.			
TMDL Development						
FY 2001/02						
Problem Statement						
Source Analysis						
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement	0.1				Problem Statement Report	Jun 03
Source Analysis	0.1					
Allocations						
TMDL Report						
FY 2003/04						
Problem Statement						
Source Analysis	0.1					
Allocations						
TMDL Report						
Implementation Planning						
FY 2001/02						
Implementation Planning						
Monitoring						
FY 2002/03						
Implementation Planning			0.2			
Monitoring	0.1			20,000	Field activities and lab contract	Jun 03
FY 2003/04						
Implementation Planning			0.2			
Monitoring	0.1			20,000	Field activities and lab contract	Jun 04
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Implementation						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Total						
FY 2001/02	0		0			
FY 2002/03	0.3		0.2	\$20,000		
FY 2003/04	0.2		0.2	\$20,000		

Table H-3n Palo Verde Drain: Bacteria						
Tasks	Staff Resources			Contracts	Products	Completion Dates
	State Existing	New	Fed.			
TMDL Development						
FY 2001/02						
Problem Statement	0.2				Problem Statement Report	Jun 02
Source Analysis	0.2					
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement						
Source Analysis	0.2					
Allocations						
TMDL Report						
FY 2003/04						
Problem Statement						
Source Analysis	0.2				Source Analysis Report	Jun 04
Allocations						
TMDL Report						
Implementation Planning						
FY 2001/02						
Implementation Planning						
Monitoring	0.2			40,000	Field activities and lab contract	Jun 02
FY 2002/03						
Implementation Planning			0.1		Stakeholder coordination and planning	
Monitoring	0.2			40,000	""	Jun 03
FY 2003/04						
Implementation Planning			0.2		""	
Monitoring	0.2			40,000	""	Jun 04
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Implementation						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Total						
FY 2001/02	0.6		0	\$40,000		
FY 2002/03	0.4		0.1	\$40,000		
FY 2003/04	0.4		0.2	\$40,000		

Table H-3o Coachella Valley Stormwater Channel: Bacteria						
Tasks	Staff Resources		Fed.	Contracts	Products	Completion Dates
	State Existing	New				
TMDL Development						
FY 2001/02						
Problem Statement						
Source Analysis						
Allocations						
TMDL Report						
FY 2002/03						
Problem Statement						
Numeric Target						
Allocations						
TMDL Report						
FY 2003/04						
Problem Statement	0.1					
Numeric Target						
Allocations						
TMDL Report						
Implementation Planning						
FY 2001/02						
Implementation Planning						
Monitoring						
FY 2002/03						
Implementation Planning						
Monitoring						
FY 2003/04						
Implementation Planning						
Monitoring						
Basin Plan Amendment						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Implementation						
FY 2001/02						
FY 2002/03						
FY 2003/04						
Total						
FY 2001/02	0		0			
FY 2002/03	0		0			
FY 2003/04	0.1		0			

Table H-4. Region 7 SFY 00-01 TMDL Funding levels

SFY 00-01 Levels Fund Source	PY
State TMDL	4.3
Fed 319 Implem	1.1
Fed 319 Develop	1.0
State Trend Monitoring	0.9
<i>TMDL sum</i>	7.3

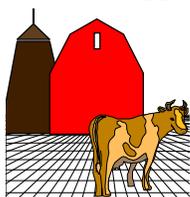
Table H-5. Requested TMDL Resources by TMDL Component

	TMDL Devel		Impl Planning		BP Amend		Impl		TOTAL	
	staff	contracts	staff	contracts	staff	contracts	staff	contracts	staff	contracts
FY 2001/02	4.0	120,000	4.0	360,000	0		1.7		9.7	480,000
FY 2002/03	4.1	40,000	3.9	480,000	0.6		2.4		11.0	520,000
FY 2003/04	2.4		3.2	440,000	0		3.4	40,000	9.0	480,000

Table H-6. Requested TMDL Resources by Fund Source

	Staff Resources		Federal Existing	Contracts
	State Existing	New		
FY 2001/02	5.2	2.4	2.1	\$480,000
FY 2002/03	5.2	3.7	2.1	\$520,000
FY 2003/04	5.2	1.7	2.1	\$440,000

Appendix I: California's Nonpoint Source Management Measures



California's MMs to address agricultural sources of NPS pollution in California:

- 1A. Erosion and Sediment Control
- 1B. Facility Wastewater and Runoff from Confined Animal Facilities
- 1C. Nutrient Management
- 1D. Pesticide Management
- 1E. Grazing Management
- 1F. Irrigation Water Management
- 1G. Education/Outreach



California's MMs to address silvicultural sources of nonpoint pollution:

- 2A. Preharvest Planning
- 2B. Streamside Management Areas
- 2C. Road Construction/Reconstruction
- 2D. Road Management
- 2E. Timber Harvesting
- 2F. Site Preparation/Forest Regeneration
- 2G. Fire Management
- 2H. Revegetation of Disturbed Areas
- 2I. Forest Chemical Management
- 2J. Wetlands Forest
- 2K. Postharvest Evaluation
- 2L. Education/Outreach



California's MMs to address urban sources of nonpoint pollution:

- 3.1 **Runoff from Developing Areas**
 - A. Watershed Protection
 - B. Site Development
 - C. New Development
- 3.2 **Runoff from Construction Sites**
 - A. Construction Site Erosion and Sediment Control
 - B. Construction Site Chemical Control
- 3.3 **Runoff from Existing Development**
 - A. Existing Development
- 3.4 **Onsite Disposal Systems (OSDSs)**
 - A. New OSDSs
 - B. Operating OSDSs
- 3.5 **Transportation Development (Roads, Highways, and Bridges)**
 - A. Planning, Siting, and Developing Roads and Highways
 - B. Bridges
 - C. Construction Projects
 - D. Chemical Control
 - E. Operation and Maintenance
 - F. Road, Highway, and Bridge Runoff Systems
- 3.6 **Education/Outreach**
 - A. Pollution Prevention/Education: General Sources



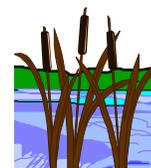
California's marina and recreational boating MMs:

- 4.1 **Assessment, Siting and Design**
 - A. Water Quality Assessment
 - B. Marina Flushing
 - C. Habitat Assessment
 - D. Shoreline Stabilization
 - E. Storm Water Runoff
 - F. Fueling Station Design
 - G. Sewage Facilities
 - H. Waste Management Facilities
- 4.2 **Operation and Maintenance**
 - A. Solid Waste Control
 - B. Fish Waste Control
 - C. Liquid Material Control
 - D. Petroleum Control
 - E. Boat Cleaning and Maintenance
 - F. Maintenance of Sewage Facilities
 - G. Boat Operation
- 4.3 **Education/Outreach**



California's MMs to address sources of nonpoint pollution related to hydromodification activities:

- 5.1 **Channelization/Channel Modification**
 - A. Physical & Chemical Characteristics of Surface Waters
 - B. Instream & Riparian Habitat Restoration
- 5.2 **Dams**
 - A. Erosion & Sediment Control
 - B. Chemical & Pollutant Control
 - C. Protection of Surface Water Quality & Instream and Riparian Habitat
- 5.3 **Streambank & Shoreline Erosion**
 - A. Eroding Streambanks & Shorelines
- 5.4 **Education/Outreach**
 - A. Educational Programs



California's MMs to protect and restore wetlands and riparian areas and use vegetated treatment systems as means to control pollution from nonpoint sources:

- 6A. **Protection of Wetlands & Riparian Areas**
- 6B. **Restoration of Wetlands & Riparian Areas**
- 6C. **Vegetated Treatment Systems**
- 6D. **Education/Outreach**

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Appendix J: Nonpoint Source Tables

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Table J- 1. Regional NPS Problems by Management Measure Category

	Pollutant(s) impairing or threatening Beneficial Uses Arranged by Management Measure Category		
Watershed/waterbody	Agriculture	Urban	Hydromodification
<i>Salton Sea Transboundary Watershed</i>			
Alamo River (52 miles)	Silt Selenium Pesticides		
New River (60 miles)	Silt Bacteria Nutrients Pesticides VOCs		
Imperial Valley Drains (1,305 miles)	Silt Selenium Pesticides		
Salton Sea (220,000 saline lake acres)	Salt Selenium Nutrients		
Coachella Valley Stormwater Channel (20 miles)		Bacteria	
<i>Lower Colorado River Watershed</i>			
Palo Verde Outfall Drain (16 miles)		Bacteria	

Table J-2. Nonpoint Source Pollution Control Short Term Objectives

Objective	Goal that the Objective Fulfills	2001	2002	2003	2004	2005	Management Measures
Achieve sediment TMDL implementation milestones	Goal 1 & 3	X	X	X	X	X	1A, 1F, 1G
Achieve New River bacteria implementation milestones	Goal 2	X	X	X	X	X	

Objective	Goal that the Objective Fulfills	2001	2002	2003	2004	2005	Management Measures
Develop nutrient TMDLs	Goals 3 & 4	X	X				
Implement nutrient TMDLs	Goals 1, 3 & 4			X	X	X	1C, 1F, 1G
Develop selenium TMDLs.	Goals 3 & 4	X	X	X	X	X	
Implement selenium TMDLs	Goals 1, 3 & 4			X	X	X	1F, 1G
Develop pesticide TMDLs	Goals 3 & 4		X	X	X	X	
Conduct comprehensive water quality monitoring, assessment, and reporting.	Goals 3 & 5	X	X	X	X	X	
Determine the quantitative performance of sediment control management practices	Goals 1, 3 & 5	X	X	X	X	X	
Tracking and oversight of implementation of the Tier 1 Imperial County Farm Bureau Watershed Program	Goals 1, 3, 4 & 5	X	X	X	X	X	1F, 1G, 1A, 1C, 1D
Provide financial and technical assistance for the implementation of demonstrations of Best Management Practices	Goals 1, 3, 4, and 5	X	X	X	X	X	1A, 1C, 1D, 1F, 1G
Provide financial and technical assistance for the development watershed plans	Goals 1, 3, 4, and 5	X	X	X	X	X	1A, 1C, 1D, 1F, 1G
Develop and implement an effective regulatory, educational, and assistance structure to address pollution from on-site disposal systems that threaten drinking water supplies.	Goals 1, 4, 5, & 7	X	X	X	X	X	3.4B
Assess the current data to develop comprehensive groundwater maps of drinking water aquifers and potential sources of pollution and to assess data gaps.	Goals 1 & 6	X	X	X			

Objective	Goal that the Objective Fulfills	2001	2002	2003	2004	2005	Management Measures
Develop TMDLs and implementation plans for waterbodies listed as impaired by pollutants of agricultural origin.	Goals 3 & 4	X	X	X	X	X	1A, 1C, 1D, 1F, 1G
Develop TMDLs and implementation plans for waterbodies listed as impaired by pollutants of international origin.		X	X	X	X	X	

Table J- 3. EDUCATION, OUTREACH, AND TECHNICAL ASSISTANCE

Target Audience	Education/Outreach/ Assistance Goals	Product(s)	Staff or Contract	Management Measure Category
TMDL Technical Advisory Committee	<ul style="list-style-type: none"> • Provide RB staff with an adaptive management committee 	<ul style="list-style-type: none"> • Monthly meetings • Formal TAC recommendations 	staff	Agriculture 1A, 1F, 1G
Imperial County Farm Bureau	<ul style="list-style-type: none"> • Effective implementation of the Farm Bureau NPS Initiative to attain measurable water quality improvement 	<ul style="list-style-type: none"> • Formal coordination with the Farm Bureau Watershed Coordinator • Regular tracking reports • Ground-truthing of tracking reports • Coordination with each of 10 “drainshed” groups established as part of the Farm Bureau Plan 	Staff	Agriculture
Imperial Valley Growers and Irrigators	<ul style="list-style-type: none"> • TMDL Requirements • Silt control BMPs 	<ul style="list-style-type: none"> • Grower-targeted video • Irrigator-targeted video (BMPs) 	contract	Agriculture 1A, 1G
Citizen’s Congressional Task Force for the New River	<ul style="list-style-type: none"> • Volunteer monitoring 	<ul style="list-style-type: none"> • Volunteer monitoring kits and guidebooks for local high school 	Contract	Wetlands 6C, 6D
Imperial Valley Irrigators	<ul style="list-style-type: none"> • Provide informational resources for agricultural BMPs 	<ul style="list-style-type: none"> • BMP handbook and technical assistance software, public forums, irrigation management and TMDL symposium 	Contract	Agriculture 1G

Target Audience	Education/Assistance/ Outreach Goals	Products	Staff or Contract	Management Measure
Imperial Valley Irrigators	<ul style="list-style-type: none"> • Provide information on irrigation management strategies to reduce non-point source pollution 	<ul style="list-style-type: none"> • Demonstration project using irrigation strategies aimed at reducing polluted runoff water 	Contract	Agriculture 1G
Imperial and Coachella Valley Growers	<ul style="list-style-type: none"> • Provide information about Fiber Mat BMPs for erosion control 	<ul style="list-style-type: none"> • Fiber Mat demonstration project and outreach to growers 	Contract	Agriculture 1G
Nationwide	<ul style="list-style-type: none"> • Provide information about Salton Sea problems/issues 	<ul style="list-style-type: none"> • 1-hour informational documentary to be aired on PBS about the Salton Sea 	Contract	Agriculture 1G
Web-savvy public	<ul style="list-style-type: none"> • Provide up-to-date information on NPS issues, TMDLs, water quality reports 	<ul style="list-style-type: none"> • Regularly updated webpage 	Staff	Agriculture 1G

Table J- 4a. Targeted Projects for Potential Funding from NPS Implementation (319 RFP)¹⁰ (Tier 1)

Project Description	Geographic Location	Management Measures	WRAS Equivalent Documents
Farm Water Quality Planning Courses/Software – should include components that focus on current and future TMDL water quality issues; should include a reporting component, and a self-evaluation component	Salton Sea Transboundary Watershed	1A, 1B, 1C, 1D, 1F, 1G	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter; • Imperial County Farm Bureau Watershed Plan(s) – in progress
Irrigator Training – should include components that focus on sediment TMDL water quality issues	Salton Sea Transboundary Watershed	1A, 1F, 1C, 1D, 1G	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter; • Imperial County Farm Bureau Watershed Plan(s) – in progress
Implementation Education & Stakeholder Involvement – should include on-the-ground encouragement/ coordination of discharger/landowner NPS implementation with reporting component	Salton Sea Transboundary Watershed	1A, 1B, 1C, 1D, 1F, 1G	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter; • Imperial County Farm Bureau Watershed Plan(s) – in progress
Wetlands Demonstration Projects – should focus on treatment of polluted agricultural drain water and/or New River water	Salton Sea Transboundary Watershed	1A, 1C, 1G, 6C, 6D	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter; • Imperial County Farm Bureau Watershed Plan(s) – in progress • Salton Sea Restoration Project EIS/EIR
Sediment TMDL Demonstration Projects – could include projects that reduce inputs of sediment to receiving water or that treat surface waters for pollutant	Salton Sea Transboundary Watershed	1A, 1F, 1G	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter; • Imperial County Farm Bureau Watershed Plan(s) – in progress
Selenium TMDL Demonstration Projects – could include projects that reduce inputs of sediment to receiving water or that treat surface waters for pollutant	Salton Sea Transboundary Watershed	1F, 1G	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter;

¹⁰ Projects not included here will also be considered for funding.

Project Description	Geographic Location	Management Measures	WRAS Equivalent Documents
Nutrient TMDL Demonstration Projects – could include projects that reduce inputs of sediment to receiving water or that treat surface waters for pollutant	Salton Sea Transboundary Watershed	1C, 1F, 1G	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter;
Pesticide TMDL Demonstration Projects – could include projects that reduce inputs of sediment to receiving water or that treat surface waters for pollutant	Salton Sea Transboundary Watershed	1A, 1D, 1F, 1G	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter;
New River Dissolved Oxygen Improvement Projects – man-made structures to improve DO levels in the River	Salton Sea Transboundary Watershed/ Imperial Hydrologic Unit /New River	3.1A, 3.3A	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter;
Septic Tank Education/Outreach	Salton Sea Transboundary Watershed/Whitewater Hydrologic Unit	3.4B	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter
Urban Nutrient Management	Salton Sea Transboundary Watershed/Whitewater Hydrologic Unit	3.1A, 3.1C, 3.3A, 3.6A	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter
TMDL Implementation Tracking System	Salton Sea Transboundary Watershed/Imperial Hydrologic Unit	1A, 1C, 1D	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter; • Imperial County Farm Bureau Watershed Plan(s) – in progress
Geographical Information System	Salton Sea Transboundary Watershed		<ul style="list-style-type: none"> • RWQCB7 WMI Chapter
Groundwater Pollution Prevention/Abatement Project(s) - projects that aim to protect groundwater aquifers and/or aim to remediate existing groundwater pollution	Salton Sea Transboundary Watershed/High Desert Groundwater Basins/ Whitewater Hydrologic Unit	1A, 1C, 1D, 1G, 1F, 3.4, 3.6	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter
Drain Erosion Control Project	Salton Sea Transboundary Watershed	1A, 1C, 1D, 1F, 1G	<ul style="list-style-type: none"> • RWQCB7 WMI Chapter; • Imperial County Farm Bureau Watershed Plan(s) – in progress

Table J- 4b. Targeted Projects for Potential Funding From State Revolving Fund (Tier 1)

Project Description	Geographic Location	Management Measures
Agricultural BMPs	Salton Sea Transboundary Watershed	Agriculture,
Wetlands Restoration and Preservation (cleanup, buffer zones, purchases, BMPs)	Salton Sea Transboundary Watershed	Agriculture
Erosion Control	Salton Sea Transboundary Watershed	Agriculture
Wildlife habitat restoration	Salton Sea Transboundary Watershed	Agriculture
Purchase conservation easements	Salton Sea Transboundary Watershed	Agriculture
Reduce polluted runoff from AFOs	Salton Sea Transboundary Watershed	Agriculture
Increase wetlands acreage	Salton Sea Transboundary Watershed	Agriculture

Table J- 4c. Targeted EQIP Projects

Project Description	Geographic Location	Management Measures
Erosion Control Projects	Salton Sea Transboundary Watershed	Agriculture
Erosion and nutrient management education/outreach projects	Salton Sea Transboundary Watershed	Agriculture
Nutrient management projects	Salton Sea Transboundary Watershed	Agriculture

Table J-6. Potential Management Agency Agreements and Memoranda of Understanding

Agency	Potential Content	Target Date for Review or Adoption	Management Measures
US Bureau of Land Management	MOU between US BLM and RWQCB 7	No review necessary	5.1B, 5.3A, 5.4A, 6A, 6B, 6D
Imperial Irrigation District	Sediment Control Water Quality Monitoring	June 2001	1A, 1C, 1D
Natural Resources Conservation Service	Shared priorities and goals	June 2001	1A, 1B, 1C, 1E, 1F, 1G
Imperial County Farm Bureau	Commitment to implement Watershed Program	June 2001	1A, 1C, 1D, 1F, 1G

Table J- 7. Proposed SFY 2000/01 Resource Allocation

Task	Product	Management Measure(s)	Geographic Area	Funding Source	Cost PY/\$
1. Alamo Sediment TMDL Implementation Planning and Monitoring	<ul style="list-style-type: none"> ▪ Monthly monitoring at strategic stations (compliance points) in the New & Alamo Rivers ▪ Quarterly data reports ▪ Year-end data report 	1A, 1G, 1F		State	0.5 PY
2. Lab analysis services for Alamo sediment TMDLs	<ul style="list-style-type: none"> ▪ Lab analysis 			State	\$100,000
3. Alamo Sediment TMDL Implementation	<ul style="list-style-type: none"> ▪ Coordination with Imperial County Farm Bureau to implement NPS Watershed Program ▪ Regular tracking reports ▪ Technical assistance to local “drainshed” groups in the formation of their plans ▪ Tracking of management measure implementation 	1A, 1G, 1F		Fed 319 (h)	0.3 PY
4. New River Bacteria TMDL Implementation Planning and Implementation	<ul style="list-style-type: none"> ▪ Coordination with NPDES program to address point source facilities in the region ▪ Modified NPDES permits if needed 			State	0.2 PY
5. New River Sediment TMDL Implementation Planning and Monitoring	<ul style="list-style-type: none"> ▪ Monthly monitoring, field report, year-end summary report 	1A, 1G, 1F		State	0.4 PY
6. New River Sediment TMDL Implementation	<ul style="list-style-type: none"> ▪ Coordination and tracking of Farm Bureau and IID implementation progress ▪ Support of adaptive management committee 	1A, 1G, 1F		Fed 319(h)	0.2 PY
7. Alamo River Selenium TMDL Monitoring	<ul style="list-style-type: none"> ▪ Field activities and lab services 			State	0.2 PY \$40,000

8. Salton Sea Nutrients TMDL Implementation Planning and Monitoring	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on nutrient control technology, year-end report ▪ Field monitoring activities 	1C, 1F, 1G		State	0.4 PY
				Fed 319(h)	0.3 PY
9. Salton Sea Selenium TMDL Implementation Planning and Monitoring	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on selenium control technology, year-end report ▪ Field monitoring activities and lab services 	1F, 1G		Fed 319(h)	0.3 PY \$40,000
10. Imperial Valley Ag. Drains: Sediment/Silt TMDL Implementation Planning and Monitoring	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on sediment control technology, coordination with Imperial County Farm Bureau for development of drainshed plans ▪ Field monitoring activities and lab services 	1A, 1F, 1G		Fed 319(h)	0.3 PY \$40,000
11. Palo Verde Drain Bacteria TMDL Monitoring	<ul style="list-style-type: none"> ▪ Field Activities and lab services 			State	0.2 PY \$40,000
12. NPS Program Management	<ul style="list-style-type: none"> ▪ Roundtable participation in the NPS and Irrigated Ag Roundtables ▪ Review of NPS Program documents 	1A, 1C, 1D, 1F, 1G		Fed 319 (h)	0.5 PY
13. 319(h) Grant Solicitation	<ul style="list-style-type: none"> ▪ Technical assistance and stakeholder outreach for completion of 319(h) grant proposals 	1A, 1C, 1D, 1F, 1G		Fed 319(h)	0.2 PY
14. 319(h) Contract Management	<ul style="list-style-type: none"> ▪ Contract Management of the contracts awarded to contractors in the Region 	1A, 1C, 1D, 1F, 1G		Fed 319(h)	0.5 PY
15. Public Education and Outreach to Promote Implementation	<ul style="list-style-type: none"> ▪ Speak at stakeholder forums ▪ Prepare outreach newsletters, bulletins about TMDL implementation ▪ Attend stakeholder conventions/meetings 	1G		State	0.3 PY

NPS RESOURCE NEED 2001/2002 THROUGH 2003/2004*

Task	Product	Year	Management Measure	Geographic Area	Funding Source	Estimated Cost in PY/\$
1. Alamo River Sediment TMDL Monitoring	<ul style="list-style-type: none"> ▪ Monthly Monitoring, field report 	01/02			Unfunded	0.3 PY
2. Alamo River Sediment TMDL Implementation Planning and Monitoring	<ul style="list-style-type: none"> ▪ Monthly Monitoring, field report, year-end summary, lab services 	02/03	1A, 1G, 1F		State	0.2 PY \$100,000
3. Alamo River Sediement TMDL Implementation Planning and Monitoring	<ul style="list-style-type: none"> ▪ Monthly Monitoring, field report, year-end summary, lab services 	03/04	1A, 1G, 1F		State	0.2 \$100,000
4. Alamo River Sediment TMDL Basin Plan Amendment	<ul style="list-style-type: none"> ▪ Basin Plan Amendment 	02/03			State	0.2 PY

5. Alamo River Sediment TMDL Implementation	<ul style="list-style-type: none"> Coordination and tracking of Farm Bureau and IID implementation progress Support of adaptive management committee 	01/02	1A, 1G, 1F, 1C, 1D		Unfunded	0.5 PY
6. Alamo River Sediment TMDL Implementation	<ul style="list-style-type: none"> Coordination and tracking of Farm Bureau and IID implementation progress Support of adaptive management committee 	02/03 03/04	1A, 1G, 1F, 1C, 1D		Unfunded Fed 319(h)	0.5 PY 0.3 PY \$100,000
7. New River Bacteria TMDL Implementation Planning	<ul style="list-style-type: none"> Coordination with NPDES program to address point source facilities in the region 	02/03 03/04			State Unfunded	0.1 PY 0.1 PY
8. New River Bacteria TMDL Implementation	<ul style="list-style-type: none"> Modified NPDES permits is needed 	02/03 03/04			Unfunded State	0.1 PY 0.1 PY
9. New River Sediment TMDL Implementation Planning and Monitoring	<ul style="list-style-type: none"> Stakeholder groups, research on sediment control technology Development of timelines and milestones Monthly monitoring, field report, year-end summary 	01/02	1A, 1G, 1F, 1C, 1D		Unfunded Unfunded	0.2 PY 0.2 PY
10. New River Sediment TMDL Monitoring	<ul style="list-style-type: none"> Monthly monitoring, field report, year-end summary and lab services 	02/03 03/04	1A, 1F, 1C, 1D		State State	0.2 PY \$100,000 0.2 PY \$100,000
11. New River Sediment TMDL Basin Plan Amendment	<ul style="list-style-type: none"> Basin Plan Amendment 	02/03			State	0.2 PY
12. New River Sediment TMDL Implementation	<ul style="list-style-type: none"> Coordination and tracking of Farm Bureau and IID implementation progress Support of adaptive management committee 	01/02	1A, 1G, 1F, 1C, 1D		Unfunded	0.6 PY
13. New River Sediment TMDL Implementation	<ul style="list-style-type: none"> Coordination and tracking of Farm Bureau and IID implementation progress Support of adaptive management committee 	02/03 03/04	1A, 1G, 1F, 1C, 1D		Unfunded State Unfunded State	0.5 PY 0.3 PY 0.5 PY 0.3 PY
14. Alamo River Selenium TMDL Monitoring	<ul style="list-style-type: none"> Field Activities and lab services 	01/02	1A, 1F, 1C, 1D		Unfunded Fed 319(h)	0.2 PY \$40,000

15. Alamo River Implementation and Monitoring	Selenium Planning	TMDL and	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on selenium control technology ▪ Development of timelines and milestones ▪ Monthly monitoring, field report, year-end summary and lab services 	02/03 03/04 02/03 03/04	1F, 1G		State State Unfunded Unfunded Fed 319(h) State Fed 319(h) Unfunded	0.2 PY 0.2 PY 0.2 PY 0.2 PY \$40,000 0.2 PY \$40,000 0.2 PY
16. Salton Sea Implementation and Monitoring	Nutrient Planning	TMDL and	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on nutrient control technology ▪ Development of timelines and milestones 	01/02	1A, 1C, 1F, 1G		Unfunded	0.4 PY
17. Salton Sea Implementation and Monitoring	Nutrient Planning	TMDL and	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on nutrient control technology ▪ Development of timelines and milestones ▪ Monthly monitoring, field report, year-end summary and lab services 	02/03 03/04 02/03 03/04	1A, 1C, 1F, 1G		Unfunded State Fed 319(h) State Fed 319(h) State Fed 319(h)	0.8 PY 0.2 PY 0.2 PY 0.2 PY \$80,000 0.2 PY \$80,000
18. Salton Sea Implementation	Nutrient	TMDL	<ul style="list-style-type: none"> ▪ Implementation tracking and oversight; year-end report 	02/03 03/04	1A, 1C, 1F, 1G		State State	0.5 PY 1.0 PY
19. Salton Sea Implementation Planning	Selenium	TMDL	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on selenium control technology ▪ Development of timelines and milestones 	01/02	1F, 1G		Unfunded	0.1 PY
20. Salton Sea Implementation and Monitoring	Selenium Planning	TMDL and	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on selenium control technology ▪ Development of timelines and milestones ▪ Monthly monitoring, field report, year-end summary and lab services 	02/03	1F, 1G		Unfunded Fed 319(h) Fed 319(h)	0.1 PY 0.1 PY 0.2 PY \$40,000
21. Salton Sea Implementation	Selenium	TMDL	<ul style="list-style-type: none"> ▪ Implementation tracking and oversight; year-end report 	02/03 03/04	1F, 1G		Unfunded Fed 319(h) State	0.1 PY 0.1 PY 0.3 PY

22. Imperial Valley Drains Sediment TMDL Implementation Planning	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on sediment control technology ▪ Development of timelines and milestones 	01/02	1A, 1C, 1D, 1F, 1G		Unfunded	0.1 PY
23. Imperial Valley Drains Sediment TMDL Implementation Planning and Monitoring	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on sediment control technology ▪ Development of timelines and milestones ▪ Monthly monitoring, field report, year-end summary and lab services 	02/03	1A, 1C, 1D, 1F, 1G		Unfunded Fed 319(h) Fed 319 (h)	0.1 PY 0.1 PY 0.2 PY \$40,000
24. Imperial Valley Drain Sediment TMDL Implementation	<ul style="list-style-type: none"> ▪ Implementation tracking and oversight; year-end report 	03/04	1A, 1C, 1D, 1F, 1G		Unfunded	0.2 PY \$40,000
25. New River Pesticides TMDL Implementation and Monitoring	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on pesticide control technology ▪ Development of timelines and milestones ▪ Monthly monitoring, field report, year-end summary and lab services 	03/04	1A, 1D, 1F, 1G		Fed 319(h) State	0.2 PY 0.2 PY \$40,000
26. Imperial Valley Drains Selenium TMDL Implementation Planning and Monitoring	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on selenium control technology ▪ Development of timelines and milestones ▪ Monthly monitoring, field report, year-end summary and lab services 	02/03 and 03/04	1F, 1G		Fed 319(h) State	0.2 PY 0.2 PY \$20,000
27. Imperial Valley Drains Selenium TMDL Implementation	<ul style="list-style-type: none"> ▪ Implementation tracking and oversight; year-end report 	03/04	1F, 1G		Fed 319 (h)	0.2 PY
28. Imperial Valley Drains Pesticides TMDL Implementation Planning and Monitoring	<ul style="list-style-type: none"> ▪ Stakeholder groups, research on pesticide control technology ▪ Development of timelines and milestones ▪ Monthly monitoring, field report, year-end summary and lab services 	02/03 and 03/04	1A, 1D, 1F, 1G		Fed 319(h) State	0.2 PY 0.1 PY \$20,000
29. Palo Verde Drain Bacteria TMDL Implementation Planning and Monitoring	<ul style="list-style-type: none"> ▪ Stakeholder coordination and planning ▪ Development of timelines and milestones ▪ Monthly monitoring, field report, year-end summary and lab services 	02/03 03/04 02/03 03/04			Fed 319(h) State	0.1 PY 0.2 PY 0.2 PY 0.2 PY \$40,000

30. NPS Program Management	<ul style="list-style-type: none"> ▪ Roundtable participation in the NPS and Irrigated Ag Roundtables ▪ Review of NPS Program documents 	1A, 1C, 1D, 1F, 1G		Fed 319 (h)	0.5 PY
31. 319(h) Grant Solicitation	<ul style="list-style-type: none"> ▪ Technical assistance and stakeholder outreach for completion of 319(h) grant proposals 	1A, 1C, 1D, 1F, 1G		Fed 319(h)	0.2 PY
32. 319(h) Contract Management	<ul style="list-style-type: none"> ▪ Contract Management of the contracts awarded to contractors in the Region 	1A, 1C, 1D, 1F, 1G		Fed 319(h)	0.5 PY
33. Public Education and Outreach to Promote Implementation	<ul style="list-style-type: none"> ▪ Speak at stakeholder forums ▪ Prepare outreach newsletters, bulletins about TMDL implementation ▪ Attend stakeholder conventions/meetings 	1G		State	0.3 PY

*Resources that have a funding source for 2001/2002 are not listed in this table because they are listed in table J-7

Appendix K: What is a WRAS?

Plans and strategies that will be considered as watershed restoration action strategies must include some reasonable portion of the following elements:

- identification of measurable environmental and programmatic goals;
- identification of sources of water pollution and the relative contribution of sources;
- implementation of pollution control and natural resource restoration measures (e.g., permit revisions, implementation of best management practices and buffer strips) to achieve clean water and other natural resource goals, especially measures which will achieve multiple environmental and public health benefits;
- schedules for implementation of needed restoration measures and identification of appropriate lead agencies to oversee implementation, maintenance, monitoring, and evaluation;
- implementation of total maximum daily loads (TMDLs) for pollutants exceeding state water quality standards;
- implementation of source water assessment and protection programs;
- needed monitoring and evaluation to assess progress towards achieving environmental and programmatic goals;
- funding plans to support the implementation and maintenance of needed restoration measures;
- a process for cross-agency (federal, state, interstate, tribal, and local) coordination to help implement watershed restoration action strategies; and
- a process for public involvement.

Appendix L: Hydrologic Units Contained in Sub-Regional Watersheds

Watershed Management Areas

Salton Sea Transboundary Watershed

Hydrologic Unit Code	Hydrologic Unit Name
719.....	Whitewater Hydrologic Unit
720.....	Clark Hydrologic Unit
721.....	West Salton Sea Hydrologic Unit
722.....	Anza Borrego Hydrologic Unit 723 Imperial Hydrologic Unit
724.....	Davies Hydrologic Unit
725.....	East Salton Sea Hydrologic Unit
726.....	Amos-Ogilby Hydrologic Unit
728.....	Salton Sea Hydrologic Unit

Hi-Desert Groundwater Basins

Hydrologic Unit Code	Hydrologic Unit Name
701.....	Lucerne Hydrologic Unit
702.....	Johnson Hydrologic Unit
703.....	Bessemer Hydrologic Unit
704.....	Means Hydrologic Unit
705.....	Emerson Hydrologic Unit
706.....	Lavic Hydrologic Unit
707.....	Deadman Hydrologic Unit
708.....	Joshua Tree Hydrologic Unit
709.....	Dale Hydrologic Unit
710.....	Bristol Hydrologic Unit
711.....	Cadiz Hydrologic Unit
712.....	Ward Hydrologic Unit
713.40.....	Lanfair Hydrologic Area
717.....	Chuckwalla Hydrologic Unit
718.....	Hayfield Hydrologic Unit

Lower Colorado River Watershed

Hydrologic Unit Code	Hydrologic Unit Name
713 (except 713.40).....	Piute Hydrologic Unit
714.....	Chemehuevi Hydrologic Unit
715.....	Colorado Hydrologic Unit
716.....	Rice Hydrologic Unit
727.....	Yuma Hydrologic Unit